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Tongass Land and Resource Management Plan

Record of Decision

Forest Service
Alaska Region

Tongass National Forest

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December 2016

Tongass National Forest
Land and Resource Management Plan
Amendment

2016 Environmental Impact Statement

Record of Decision

United States Department of Agriculture
Forest Service Alaska Region
Tongass National Forest

December 2016

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ABBREVIATIONS

ADF&G	Alaska Department of Fish and Game
ANILCA	Alaska National Interest Lands Conservation Act
BA	Biological Assessment
BASI	Best Available Scientific Information
BE	Biological Evaluation
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
DPS	Distinct Population Segment
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FACA	Federal Advisory Committee Act
FR	Federal Register
FSH	Forest Service Handbook
GIS	Geographic Information System
IDT	Interdisciplinary Team
IRA	Inventoried Roadless Area
LUD	Land Use Designation
MBF	Thousand Board Feet
MMBF	Million Board Feet
NEPA	National Environmental Policy Act
NFMA	National Forest Management Act
NFS	National Forest System
NMFS	National Marine Fisheries Service
OGR	Old Growth Reserve
PNW	Pacific Northwest Research Station
POG	Productive Old Growth
PTSQ	Projected Timber Sale Quantity
RMA	Riparian Management Area
ROD	Record of Decision
ROS	Recreation Opportunity Spectrum
S&Gs	Standards and Guidelines
SIO	Scenic Integrity Objective
T77	Tongass 77
TAC	Tongass Advisory Committee
TNC	The Nature Conservancy
TTRA	Tongass Timber Reform Act
TUS	Transportation and Utility System
U.S.C.	United States Code
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
VCU	Value Comparison Unit

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Record of Decision

Introduction

This document is a public Record of Decision (ROD) that documents my decision to approve the 2016 Amendment to the Tongass Land and Resource Management Plan (Forest Plan), and the rationale for making that decision. The amended Forest Plan is contained in the document titled *Land and Resource Management Plan – Tongass National Forest*, dated December 2016,[1] and is based on Alternative 5 in the *Tongass Land and Resource Management Plan Amendment Final Environmental Impact Statement* (Final EIS). The map of record for the 2016 Forest Plan Amendment is labeled "Tongass National Forest, Land Use Designations, December 2016."

Response to Objections

The Draft ROD, Final EIS, and Amended Forest Plan were released on July 1, 2016, initiating a 60-day objection filing period under 36 CFR Part 219, Subpart B. The Reviewing Officer, Regional Forester Beth Pendleton, received 27 eligible objections during the objection filing period, and held an objection resolution meeting in Ketchikan and Juneau in October. The Reviewing Officer issued her Response to Objections on November 28, 2016, which included instructions that resulted in specific changes and clarifications to the ROD, the associated ROD map, the amended Plan, and/or an errata for the Final EIS. As described in detail in my memorandum to the Regional Forester of December 6, 2016, I have complied with each of the Reviewing Officer's instructions. All changes to the Draft ROD required by the instructions are included in this document in the appropriate section, as follows:

- Page 3 includes changes responding to instruction item 10 to reference the Southeast Alaska Electrical Intertie System Plan.
- Page 7 includes changes responding to instruction item 12, to make the description of young-growth timber harvest consistent with related descriptions in the amended Plan and Final EIS.
- Pages 7 and 8 include changes responding to instruction item 3, to better describe the management of watersheds known as the "Tongass 77" and areas identified by the Audubon Society and The Nature Conservancy as conservation priority areas.
- Page 13 includes changes responding to instruction item 1, explaining why I believe Alternative 4 in the Final EIS is the environmentally preferable alternative.
- Page 31 includes changes responding to instruction item 17, to add a management approach dealing with monitoring harvest levels compared to projections made in the Final EIS.
- Page 32 includes changes responding to instruction item 15, correcting the description of the "seek to meet market demand" provision of the Tongass Timber Reform Act.
- Pages 35 and 36 include changes responding to instruction item 9, dealing more thoroughly with gaps in existing data on streams and watershed conditions.

[1] As explained in the *Response to Objections* section of this document, the amended Forest Plan and the ROD map have been updated to incorporate the changes required by the Reviewing Officer's instructions included in the *Response to Objections,* dated November 28, 2016.

- Page 36 includes changes responding to instruction item 11 regarding ongoing inventory work with the State and Private Forestry branch of the Forest Service and the State of Alaska.
- Pages 36 and 37 include changes responding to instruction item 2 acknowledging that legislation has been introduced to facilitate the proposed land exchange with the Alaska Mental Health Trust.
- Page 39 includes changes responding to instruction item 18, explaining that the Forest will consider replacing acre-for-acre any young-growth forest that may be removed from the suitable timber base, which would require an amendment to the Forest Plan.

In addition to the changes made to comply with the Reviewing Officer's instructions, three other substantive changes have been incorporated in this document. Page 36 includes changes in the *Station Director Concurrence* section to more fully describe how Experimental Forests will be managed. Page 39 includes a new discussion of adaptive management to highlight how the amended Forest Plan embodies this concept. Finally, page 42 includes changes in the *Endangered Species Act* section reflecting the concurrence by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service with the Forest Service's determination that the amended Forest Plan is not likely to adversely affect any threatened or endangered species or their critical habitat.

Brief Summary

The amended Forest Plan includes edits throughout the entire document; however, the substantive changes, which constitute the Plan Amendment, are set out in Chapter 5. All other changes are simply clarifications, corrections of typographical errors, and updates of references to law, regulation, and other mandatory policy direction to reflect the current version of such provisions that have changed since 2008. The Final EIS describes and analyzes the substantive changes to the Forest Plan. As explained more thoroughly in this Decision, the Plan Amendment makes the following changes to the Plan:

- It allows old-growth harvest only within that portion of the Tongass included in Phase 1 of the timber sale program adaptive management strategy included in the 2008 Tongass Forest Plan Amendment;
- It allows young-growth harvest in all three phases of the 2008 timber sale program adaptive management strategy, but only outside of roadless areas identified in the 2001 Roadless Rule.
- It allows young-growth management in development Land Use Designations (LUDs) and in the Old-growth Habitat LUD, beach and estuary fringe, and Riparian Management Areas (RMAs) outside of Tongass Timber Reform Act (TTRA) stream buffers, subject to certain conditions and for a specified period of time;
- It establishes direction to protect priority watersheds.
- It modifies the network of old-growth reserves (OGRs) to maintain their effectiveness.
- It includes new management direction to facilitate renewable energy production.

Background

Under the National Forest Management Act (NFMA), the Secretary of Agriculture is required to "develop, maintain, and, as appropriate, revise land and resource management plans [forest plans] for units of the National Forest System." Title 16 of the United States Code (16 U.S.C. § 1604(a)). Forest plans are expected to be revised every 15 years (16 U.S.C. § 1604(f)(5)(A)).

Pursuant to 16 U.S.C. § 1604(g), the Secretary of Agriculture promulgated regulations found in Title 36 of the Code of Federal Regulations (36 CFR Part 219) establishing procedures for the development, amendment, and revision of forest plans. This Plan Amendment was developed under the current Rule, promulgated in 2012.

Forest planning on the Tongass National Forest has long been a complex and contentious undertaking. This history is described in detail in Chapter 1 of the Final EIS, so I offer only a brief summary of it here. In 1979, the Tongass National Forest was the first to complete a forest plan under NFMA. In 1984, the Forest Service completed a 5-year review of the Forest Plan, as required by the NFMA implementing regulation then in effect, and that review led to an amendment of the Forest Plan in 1986. The agency began work to revise the Forest Plan in 1987. The Tongass Timber Reform Act became law in November 1990, which resulted in a second amendment to the Plan in 1991. A Revised Forest Plan was approved in 1997, and was appealed by several parties. The Under Secretary of Agriculture affirmed the 1997 decision in 1999, but also issued a new ROD that modified the 1997 Plan. As a result of subsequent litigation, the 1999 ROD was vacated, and the Forest Service was directed to prepare a Supplemental EIS to determine whether additional wilderness areas should be recommended. That Supplemental EIS was completed in 2003 and recommended no additional wilderness.

The validity of the 1997 Forest Plan was challenged, and that litigation eventually resulted in a decision by the U.S. Court of Appeals for the Ninth Circuit in *Natural Resources Defense Council v. U.S. Forest Service* (421 F.3d 797) in August 2005 that found a number of inadequacies in the 1997 EIS. The Forest Service prepared the 2008 Tongass Forest Plan Amendment and the associated EIS in response to the Ninth Circuit court's decision and in response to the 5-Year Review of the Plan completed in early 2005, which recommended several updates to the Plan. Numerous individuals and organizations appealed the 2008 Forest Plan Amendment. The Chief of the Forest Service rejected the appeals and affirmed the Regional Forester's decision in August 2008 (later upheld by the District Court for the District of Columbia in *Southeast Conference v. Vilsack,* 684 F. Supp.2d 135 (2010)). The Regional Forester stated in the 2008 ROD that: "Because this amendment essentially completes the process of revising the Tongass Forest Plan that was initiated in 1987, the Forest Plan will not need to be revised again for 10 to 15 years, unless changed conditions require it sooner."

Other administrative, congressional, and judicial proceedings have also affected forest planning and management of the Tongass National Forest. In 1997, the Southeast Conference issued the *Southeast Alaska Electrical Intertie System Plan: Report #97-01*, which recommended that a network of "interties" be constructed across Southeast Alaska to connect the electrical generation and distribution grids of several communities in the region. In 2000, Congress enacted the "Southeastern Alaska Intertie Authorization Limit" as Section 601 of Public Law 106-511, which authorized appropriations to the Secretary of Energy of no more than $384 million to pay up to 80 percent of the cost of constructing the Intertie System described in the Southeast Conference Report. Additionally, Section 601 of Public Law 106-511 states that "Nothing in this title shall be construed to limit or waive any otherwise applicable State or Federal Law." When specific proposals to construct a portion of the Intertie System are made, the Forest Service reviews them for consistency with the Forest Plan and analyzes their site-specific environmental effects, as required by law. A good example is the Ketchikan-Petersburg Intertie project, which I approved on November 30, 2016.

The United States Department of Agriculture (USDA) promulgated the Roadless Area Conservation Rule in January 2001 (36 CFR 294 Subpart B), which generally prohibits cutting trees and building roads in inventoried roadless areas on National Forest System lands. In response to litigation filed by the State of Alaska, USDA promulgated a regulation in 2003 temporarily exempting the Tongass National Forest from the prohibitions of the 2001 Roadless Rule. In May 2011, the Alaska District Court vacated the Tongass exemption and reinstated the 2001 Roadless Rule on the Tongass National Forest (*Organized Village of Kake v. United States Department of Agriculture,* 776 F. Supp.2d 960 (D. Alaska 2011)). After additional judicial proceedings, the Ninth Circuit Court issued its *en banc* decision upholding the Alaska District

Court's reinstatement of the Roadless Rule (795 F.3d 956 (2015), *cert. denied*, 136 S.Ct. 1509 (2016)). Thus, the Tongass has been subject to the Roadless Rule since 2011 and remains so today. While the analysis for the 2008 Tongass Plan Amendment assumed the 2001 Roadless Rule would not apply because it was prepared during the time the Tongass was exempt, the 2016 Tongass Forest Plan Amendment I am approving today -- and the analysis in the associated Final EIS -- is fully consistent with the Roadless Rule.

The Tongass National Forest has also worked hard over the years to collaborate with a wide range of stakeholders to identify common interests as a basis for developing mutually agreeable solutions to contentious issues regarding the Tongass. The primary example was the Tongass Futures Roundtable. Formed in the fall of 2006 by The Nature Conservancy, the Roundtable brought together a diverse group of people and organizations long active in Tongass policy matters with the ultimate goal of developing consensus recommendations regarding where timber harvest should be allowed on the Tongass, and on which portions of the National Forest timber harvest should be prohibited. But the Roundtable was not just about timber issues. It also advocated for more diversified and sustainable local economies in communities across Southeast Alaska, including efforts to reduce the high energy costs that impede economic diversification by promoting development of renewable energy in communities that currently depend on diesel generators to provide electrical power. While the ultimate goal of the Roundtable proved elusive and it dissolved in 2011, several important relationships were established that laid the groundwork for collaborative efforts to come.

Wishing to carry forward the efforts of the Tongass Futures Roundtable, including those to develop more diversified and sustainable economies in the communities of Southeast Alaska, representatives of the Forest Service, USDA Rural Development, and the Economic Development Administration conducted a series of listening sessions in the fall of 2009 in all 32 communities in Southeast Alaska to solicit ways to stimulate job creation and economic diversification throughout the region. These listening sessions led to development of the Transition Framework, a strategy for developing economic opportunities in renewable energy, forest restoration, fisheries and mariculture, tourism and recreation, and subsistence. The high cost of energy was soon identified as a major barrier to sustainable economic development in the region. As work on the Framework continued to progress in 2011, the USDA agencies, working with the Juneau Economic Development Council, collaborated with over 120 business and community leaders to develop economic diversification initiatives through the creation of business clusters that, by 2013, included clusters for Ocean Products, Visitor Products, Renewable Energy, Mining Services and Supply, and Research and Development, as well as the Working Forest Group to address timber management issues.

This work was done against a backdrop of historical controversy regarding timber management on the Tongass, involving a wide range of players with many differing views on how best to manage the National Forest, with the conflict being waged on many fronts. Many lawsuits have been filed over the years over specific timber sales, as well as the Tongass Forest Plan, nearly all of which have focused primarily on how much old-growth timber should be harvested. This decades-long conflict, along with changes in market conditions, has posed major challenges for the forest products industry in Southeast Alaska. The number of operating mills in the region has dropped from 19 to 10 since 2000. Instability of the timber supply makes it difficult for operators to obtain financing for modernizing their mills and other equipment. The problems associated with obtaining a reliable supply of old-growth timber has led some stakeholders – including some operators in the forest products industry -- to begin to explore the possibility of harvesting young-growth timber in Southeast Alaska. While domestic markets for young-growth timber from the Tongass are still unproven, international markets offer opportunities while the industry continues to innovate, re-tool, and develop domestic markets for products that can be made from young-growth timber from the Tongass.

It was in this context of sustained collaborative efforts to promote more sustainable economic diversification and a more sustainable timber management program on the Tongass National Forest that the Secretary of Agriculture issued Memorandum 1044-009, *Addressing Sustainable*

Forestry in Southeast Alaska, on July 2, 2013. An outgrowth of previous work on the Transition Framework, the Secretary's memorandum directs management of the Tongass National Forest to expedite the transition away from old-growth timber harvesting and towards a forest products industry that uses predominantly second-growth – or young-growth – forests. It also affirmed that "this transition to a more ecologically, socially, and economically sustainable forest management is a high priority for USDA, the Forest Service, and the Tongass National Forest." The memorandum directs the transition to be implemented in a manner that preserves a viable timber industry that provides jobs and opportunities for Southeast Alaska residents, with the goal of implementing the transition over the next 10 to 15 years, so that at the end of this period the vast majority of timber sold by the Tongass will be young growth. The Secretary's memorandum also announced that USDA would establish an advisory committee (which became known as the Tongass Advisory Committee (TAC)) under the Federal Advisory Committee Act (FACA) to provide recommendations to the Forest Service on ways to accelerate the young-growth transition.

In addition to addressing the transition of the Tongass timber program to young-growth management, the Secretary's July 2013 memorandum references the increased support USDA had provided over the previous three years under the Transition Framework to support "alternative economic development opportunities for communities across the region in the recreation, tourism, fishing and renewable energy sectors," and directs such collaborative efforts to continue "to help strengthen and diversify local economies."

While these collaborative efforts were underway in Southeast Alaska, USDA was also pursuing similar approaches nationally regarding forest planning across the National Forest System. These efforts culminated in the publication in the Federal Register (FR) of the 2012 Planning Rule for land management planning on April 9, 2012 (77 FR 21162). The 2012 Planning Rule, which took effect on May 9, 2012, was developed through the most collaborative rulemaking effort in Agency history to ensure an adaptive land management planning process that is inclusive, efficient, collaborative and science-based to promote healthy, resilient, diverse, and productive National Forests and Grasslands. In January 2015, the Forest Service published the final planning directives, the key set of agency guidance documents that direct implementation of the 2012 Planning Rule.

My objectives for the 2016 Forest Plan Amendment are to make strategic changes to the 2008 amended Forest Plan based on the need for more stable contributions to the economic and social sustainability of Southeast Alaska. The Amendment responds to the July 2013 memorandum from the Secretary of Agriculture and the dozens of public and internal sessions conducted in the years leading up to the Secretary's memorandum, and reflects contributions from the Tongass Advisory Committee. It supports both transitioning to a more economically, socially and ecologically sustainable timber program on the Tongass and promoting more sustainable and diverse local economies by encouraging renewable energy production to reduce high energy costs. Changes to the Plan are focused on accelerating the transition from a primarily old growth to a primarily young-growth timber program, and reducing plan-related impediments to renewable energy production.

My objectives also include responding to recommendations from the 5-Year Review of the Forest Plan completed in 2013. This Review concluded that conditions on the land and demands of the public had changed and therefore the Tongass National Forest should make changes to the Forest Plan. Concerns were consistently expressed during the Five-Year Review regarding the impact of high fossil fuel prices, the adverse effect of high energy costs on economic diversification and sustainable economic development, and increasing impacts of climate change on the quality of life in Southeast Alaska. Concerns were also expressed that the 2008 Plan's direction regarding transportation and utility systems (TUS), including the TUS overlay LUD, were overly complex, confusing, and difficult to implement, creating an impediment to development of hydropower, other types of renewable energy, and transmission lines needed to connect communities to sources of electric power. Based on this review and on the Secretary's July 2013 memorandum, Forest Supervisor Forrest Cole issued a determination on September 13, 2013

that changes to the Forest Plan were needed to speed the transition to young-growth management -- with specifics to be determined after receiving recommendations from the Tongass Advisory Committee -- and to incorporate appropriate recommendations made during the 5-Year Review. See the discussion below under the *Scope and Scale of the Amendment* section of this ROD.

For reasons that will be explained throughout this ROD, I conclude the 2016 Forest Plan Amendment, with the changes made to comply with the Reviewing Officer's instructions, meets all of the very challenging objectives set out for the Amendment and all applicable legal requirements.

The Decision

The decision I am making today is to approve the 2016 Forest Plan Amendment, which is Alternative 5 (the Selected Alternative) as described in the Final EIS, with the changes required by the Reviewing Officer's Response to Objections. As required by law and regulation, this decision is fully supported by the environmental analysis documented in the Final EIS, with the clarifications required by the Reviewing Officer's instructions and included in the Final EIS errata dated December 2016.

I have made my decision after careful consideration of the public comments on the Draft EIS for the 2016 Tongass Land and Resource Management Plan Amendment, which was prepared pursuant to the National Environmental Policy Act (NEPA). I have also reviewed the Final EIS; the Forest Plan Amendment; the Reviewing Officer's Response to Objections, especially the instructions included in that response; and the changes to the amended Plan, Draft ROD, ROD map, and Final EIS addressing those instructions. All site-specific projects approved after the effective date of this Forest Plan Amendment will be subject to environmental analysis, which will tier to the Final EIS for the Forest Plan Amendment (including the December 2016 errata). In addition, all site-specific projects approved after the effective date of this Forest Plan Amendment must be consistent with it.

Summary of Alternative 5 as Described in the Final EIS

Alternative 5 is based on the recommendations from the Tongass Advisory Committee (TAC), a formally established Federal Advisory Committee that included representatives from Federally Recognized Tribes, Alaska Native organizations, Alaska Native corporations, national and regional environmental and conservation organizations, timber industry operators, Federal, State, and local governments, permittees, other commercial operators, and the general public. The Selected Alternative allows old-growth harvest only within that portion of the Tongass included in Phase 1 of the timber sale program adaptive management strategy adopted by the Regional Forester as part of the Record of Decision for the 2008 Tongass Forest Plan Amendment. That strategy was aimed at reducing impacts to high-value roadless areas of the Tongass, based on a more recent inventory of roadless areas than that used in development of the 2001 Roadless Rule, including some areas not included in the 2001 Roadless Rule. The strategy separated roadless areas into three categories (low-, medium-, and high-value), and limited timber harvest to roaded areas of the National Forest and low-value roadless areas (called Phase 1) unless timber harvest reached 100 million board feet (MMBF) for two consecutive fiscal years, when harvest would also have been allowed in Phase 2's medium-value roadless areas. Further details are provided in the 2008 ROD on pages 9-10 and 64-66. Because the 2001 Roadless Rule now applies to the Tongass, and Alternative 5 does not include a proposal to change that, no old-growth or young-growth harvest will occur in roadless areas identified in the 2001 Roadless Rule.[2]

[2] Except where consistent with the District Court of Alaska's May 24, 2011 judgment reinstating the 2001 Roadless Rule on the Tongass, *Organized Village of Kake v. USDA,* No. 1:09-cy-00023 (D. Alaska May 24, 2011) (making special provision for certain projects and activities, including road construction and timber cutting for listed projects, personal

Alternative 5 allows young-growth harvest in all three phases of the 2008 timber sale program adaptive management strategy (without regard to harvest levels), but only outside of roadless areas identified in the 2001 Roadless Rule. It allows young-growth management in development LUDs and in the Old-growth Habitat LUD. Harvest of young growth is also allowed in beach and estuary fringe and RMAs (stream buffers) outside of TTRA buffers within development LUDs and the Old-growth Habitat LUD. A 100-ft no-cut buffer is established around all Class I and Class II lakes (those with anadromous and resident fish). Harvest in the Old-growth Habitat LUD, beach and estuary fringe, and RMAs outside of TTRA buffers is allowed only during the first 15 years after approval of this Forest Plan Amendment, and is limited to commercial thinning with a maximum removal of 33 percent of the basal area of the timber stand (the area occupied by tree stems), or to creating harvest openings of up to 10 acres with a maximum removal of 35 percent of the acreage of the original harvested stand (a combination of the two treatments may be used, with no more than 35 percent of the total stand removed in either basal area and/or acres). TTRA and other withdrawn areas do not count towards the stand's original acreage. In beach and estuary fringe, a 200-foot no-cut buffer adjacent to the shoreline is required. Scenery standards (known as Scenic Integrity Objectives or SIOs) for young-growth management are reduced to Very Low for all distance zones in the development LUDs only.

Due to enactment of the Sealaska Lands Bill as section 3002 of the National Defense Authorization Act for Fiscal Year 2015, Public Law 113-291 (2014), legal requirements for determining the youngest age for harvest (known as the Culmination of Mean Annual Increment or CMAI) are eliminated on up to 50,000 acres of young- growth, subject to additional acreage and time restrictions. Beyond these limits, the minimum harvest age continues to be flexible under exceptions allowed by NFMA.

Under Alternative 5 the Agency estimates that an average of 46 MMBF of timber will be offered per year (equivalent to the rate needed to meet the projected timber demand for the planning cycle). The alternative emphasizes sales of young-growth timber and minimizes sales of old growth while maintaining 46 MMBF per year, to reach the estimated quantity of timber expected to be sold during the first decade, 460 MMBF. As such, under Alternative 5 the Agency expects to sell an average of about 12 MMBF of young growth and 34 MMBF of old growth per year during the first 10 years. From Year 11 through Year 15, it expects to sell an average of 28 MMBF of young growth and about 18 MMBF of old growth per year. Alternative 5 is expected to reach a full transition of 41 MMBF of young growth about Year 16. Young-growth sales are expected to continue to increase at a rapid rate after Year 16 and are expected to reach an upper limit of 98 MMBF about Year 18. Old-growth timber will continue to be offered at an average rate of 5 MMBF per year to support small operators and specialty products such as wood for musical instruments.

Alternative 5 also incorporates TAC recommendations to protect certain watersheds known as the "Tongass 77" (T77),[3] that have been identified by Trout Unlimited as high priority watersheds for protection due to their outstanding habitat values, fish production, and diversity of fish species present. In addition, the TAC recommended protection of "conservation priority areas" identified by The Nature Conservancy (TNC) and Audubon Alaska (Albert and Schoen 2007)[4]. These watersheds and conservation areas are not a separate LUD under Alternative 5; they will be managed according to the direction applicable to the underlying LUD in which they are located. Old-growth harvest will not be allowed, however, and old-growth acres within these watersheds and conservation areas that are allocated to development LUDs are classified as unsuitable under Alternative 5. Young-growth timber harvest will be allowed in

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timber use, firewood, and certain roadside microsales, and hydroelectric development), *aff'd en banc* 795 F.3d 956 (9th Cir. 2015), *cert. denied,* 136 S.Ct. 1509 (2016).

[3] The Tongass 77 (T77) refers to value comparison units, which approximate major watersheds located on the Tongass National Forest that Trout Unlimited, Alaska Program identifies as priority salmon watersheds. Due to the enactment of Sealaska Lands Bill as part of Public Law 113-291, there was a net reduction in the T77. To provide clarity and consistency, this document continues to use the T77 terminology to refer to these priority watersheds.

[4] Please see the *References* section in Chapter 6 of the Final EIS for references cited in this ROD.

some of these watersheds and conservation areas. Five years after approval of this Forest Plan Amendment, the Forest Service will conduct an internal scientific review in collaboration with a forest collaborative and other stakeholders to determine likely impacts to fish and wildlife habitat from young-growth timber projects that intersect with several of these high-value watersheds. If the review indicates that young-growth harvest does not adversely affect fish and wildlife populations, young growth in these areas will remain in the suitable timber base. If, however, the review indicates that young-growth harvest does result in adverse effects on fish and wildlife populations, the Forest will then review the T77 watersheds and Audubon/TNC conservation priority areas to determine whether a subsequent amendment to the amended Plan is necessary. In addition, the Forest Service will conduct monitoring with stakeholders five and ten years after approval to determine if young-growth goals are being achieved and adjust accordingly if they are not.

Under Public Law 113-291, approximately 70,000 acres of National Forest System (NFS) land were conveyed to Sealaska and an additional 152,000 acres were converted to LUD II, a non-development LUD. As a result, Old-Growth Habitat LUDs or reserves were affected in 16 Value Comparison Units (VCUs, geographic areas roughly analogous to large watersheds). Beginning in February 2015, an interagency team of biologists worked to develop a biologically preferred option for modifying the network of OGRs that met the requirements established in Appendix K of the 1997 Forest Plan for the size and distribution of the reserves and to document why other proposals were not recommended. In September 2015, they produced their biologically preferred option for maintaining the effectiveness of the network of OGRs, and this option was incorporated into Alternative 5. Table 1 shows the LUD allocation acres and the acres of land suitable for timber production in Alternative 5 (the Selected Alternative).

The Selected Alternative also includes new management direction that alleviates Plan-related impediments to renewable energy production. In addition, the Transportation and Utility Systems overlay LUD is removed. The LUD management prescription is replaced by plan components, which provide management direction for renewable energy and transportation systems corridors (see Chapter 5 in the amended Forest Plan).

Changes to Alternative 5 Adopted in the Final EIS

Alternative 5 and the other action alternatives displayed in the Draft EIS included numerous changes to Chapters 2-4 of the 2008 Amended Forest Plan. Several of these would delete language taken from the Forest Service Handbook (FSH) or Forest Service Manual or other existing direction. The Forest Service proposed deleting these redundant provisions because they are unnecessary, and because current FSH direction is to avoid repeating language from laws, regulations, or Forest Service directives in a Forest Plan.

However, public comments expressed concerns that the extent of these deletions gave the appearance of a broad-based amendment (see Final EIS, Appendix I, the sections on *Purpose and Need* and the *Planning Rule*). Although these deletions were administrative, they have been restored to the amended Forest Plan for the sake of clarity.

Other changes to Chapters 2-4 of the 2008 Amended Forest Plan were also included in Alternative 5 and other action alternatives displayed in the Draft EIS. These changes corrected typographical errors, deleted obsolete language, updated references to legal requirements that have changed, and clarified other passages. These changes were all non-substantive administrative changes needed to avoid erroneous interpretations of Forest Plan direction. For this reason, the Selected Alternative retains these changes to Chapters 2-4 of the 2008 amended Forest Plan. As discussed in the *Introduction* section of this ROD, all substantive changes to the text of the Forest Plan as amended in 2008 are described in Chapter 5 of the Forest Plan Amendment.

Table 1
Land Use Designations, Suitable, and Projected Harvest Acres for Alternative 5[1]

Land Use Designation Group	Acres Allocated
Wilderness LUD Group[2]	5,922,131
Natural Setting LUD Group – No YG Harvest [3]	6,270,909
Natural Setting LUD Group – With YG Harvest [4]	1,202,450
Development LUD Group [5]	3,359,367
Total National Forest System lands	16,755,685[6]
Suitable Acres	**Acres Allocated**
Suitable Acres-Old Growth	229,060
Suitable Acres-Young Growth	338,973
Projected Harvest	**Acres Allocated**
Projected Harvest Acres after 25 Years	
Old Growth	23,813
Young Growth	43,316
Projected Harvest Acres after 100 Years	
Old Growth	42,479
Young Growth	284,144

[1] When more than one LUD is applied to the same area, such as a Special Interest Area within Wilderness, only the acreage of the more restrictive LUD is included. The acreage for the Minerals LUD would be 249,570; these acres are not included in the table because the Minerals LUD is an overlay. No acreages have been calculated for Renewable Energy and Transportation Systems Corridors because the transportation projects are a series of corridors with undefined width and imprecise locations and not all renewable energy site locations are known. Totals may not exactly equal the sum of individual entries due to rounding.

[2] Includes Wilderness and National Monument LUDs.

[3] Includes all Natural Setting LUDs except Old-Growth Habitat: LUD II, Research Natural Area, Municipal Watershed, Wild, Scenic, and Recreational River, Special Interest Area, Remote Recreation, and Semi-Remote Recreation LUDs.

[4] Includes Old-Growth Habitat LUD.

[5] Includes Timber Production, Modified Landscape, and Scenic Viewshed LUDs. Experimental Forest is also included, even though it is technically not a Development LUD.

[6] Includes 829 acres of unlabeled GIS slivers.

Alternatives Considered

Chapter 2 of the Final EIS for this Amendment provides a detailed description of the evolution of the alternatives considered.

Development of Alternatives Included in the EIS

The proposed action (Alternative 2) was developed to maximize the percentage of volume coming from young growth as early as possible, while minimizing any potential effects on the Tongass Old-growth Habitat Conservation Strategy, and to alleviate Plan-related impediments to renewable energy production in the plan area. Alternatives to the proposed action were developed in response to the significant issues.

Ten alternatives were considered as part of the alternative development process. These included alternatives recommended in scoping comments, other comments, and developed internally by the Plan Amendment interdisciplinary team (IDT). Of these, five alternatives were eliminated from detailed study primarily because they did not meet the Purpose and Need of accelerating the transition to young-growth management while maintaining the timber industry and encouraging the production of renewable energy resources.

Five alternatives (including the Proposed Action) were considered in detail in the Final EIS. They were designed to provide a reasonable range of ways to meet the Purpose and Need.

Basic tools used in the development of the alternatives included timber demand projections from the Forest Service's Pacific Northwest Research Station, Tongass Geographic Information System databases, and the existing inventory of roadless lands (based on the 2001 Roadless Rule). Maintaining the integrity of the Old-growth Habitat Conservation Strategy was also a major consideration in alternative development. Alternative proposals from other agencies or non-governmental organizations were considered along with alternatives developed internally by the Plan Amendment IDT.

Alternatives Considered in Detail, Including the No-Action Alternative

Alternative 1

The No Action Alternative represents current management direction (2008 amended Forest Plan) and the direction contained in the Secretary's July 2013 memorandum and includes the application of the Roadless Area Conservation Rule (2001 Roadless Rule) (36 CFR 294 Subpart B (2001)).[5] Under this alternative, timber harvest would follow the 2008 timber sale program adaptive management strategy in all phases outside of inventoried roadless areas (USDA Forest Service 2008c).

Timber management would be restricted to the development LUDs and no commercial harvest would be allowed in beach and estuary fringe or RMAs. The 2008 amended Forest Plan management direction would be followed. Renewable energy development (e.g., hydropower and utilities) would be subject to the existing TUS overlay LUD and scenery standards in the 2008 amended Forest Plan.

Alternative 2

As in Alternative 1, this alternative would follow the 2008 timber sale program adaptive management strategy in all phases for old-growth harvest. However, the portions of inventoried roadless areas (IRAs) that were roaded before the 2001 Roadless Rule and during the 2001 Roadless Rule exemption period for the Tongass would be available for young-growth and old-growth harvest. This would require rulemaking to modify 36 CFR 294.13(b)(4) (2001). The prohibitions of the 2001 Roadless Rule would continue to apply to these areas until the completion of rulemaking, consistent with the District Court of Alaska's 2011 judgment reinstating the Roadless Rule on the Tongass.[6]

Alternative 2 would differ substantially from Alternative 1 in terms of young-growth harvest. Young-growth management would be allowed in both development and non-development LUDs (except for Congressionally designated and administratively withdrawn areas, such as Wilderness, and islands less than 1,000 acres in size), in the beach and estuary fringe, in RMAs outside of TTRA buffers, and in high-vulnerability karst. No harvest would occur in IRAs that have not been roaded.

Young-growth management could include clearcutting in all areas, except in RMAs and on high-vulnerability karst, where only commercial thinning (up to 33 percent basal area removal) would be allowed. After 15 years, clearcutting would no longer be allowed in the beach and estuary

[5] The Roadless Rule applies to the Tongass National Forest pursuant to the ruling of the U.S. District Court for the District of Alaska in *Organized Village of Kake v. U.S. Dept. of Agriculture,* 776 F.Supp.2d 960 (D. Alaska 2011), *aff'd en banc* 795 F.3d 956 (9th Cir. 2015), cert. denied, 136 S.Ct. 1509 (2016)).The district court's final judgment, *Organized Village of Kake v. USDA,* No. 1:09-cv-00023 (D. Alaska May 24, 2011), makes special provision for certain projects and activities, including road construction and timber cutting for listed projects, personal timber use, firewood, and certain roadside microsales, and hydroelectric development.
[6] See *Id.*

fringe; only commercial thinning would be allowed. In addition, scenery standards for young-growth management would be relaxed; SIOs would be Very Low for all LUDs and distance zones.

The Forest Plan would include new management direction to improve flexibility in renewable energy development under this alternative. Scenery standards for renewable energy development would be relaxed; SIOs would be Very Low for all LUDs and distance zones.

Alternative 3

Alternative 3 would allow old-growth harvest only in Phase 1 of the existing timber sale program adaptive management strategy. This alternative would allow young-growth and old-growth harvest in 2001 Roadless Rule IRAs. The prohibitions of the 2001 Roadless Rule, consistent with the District Court of Alaska's 2011 judgment reinstating the Roadless Rule on the Tongass, would apply until the completion of rulemaking.[7]

Alternative 3 is similar to Alternative 2 in that it identifies lands as suitable for young-growth timber production in both development and natural setting LUDs (except for Congressionally designated areas such as Wilderness, and administratively withdrawn areas and islands less than 1,000 acres in size), as well as in beach and estuary fringe and in high-vulnerability karst, but not in RMAs. Young- growth management could include clearcutting in all areas, except in beach and estuary fringe and on high-vulnerability karst, where only commercial thinning would be allowed. In addition, SIOs for young-growth management would be reduced by one level relative to the 2008 amended Forest Plan (i.e., High would be reduced to Moderate, Moderate would be reduced to Low, and Low and Very Low would become Very Low).

The Forest Plan would include new management direction to improve flexibility in renewable energy development under this alternative. Scenery standards for renewable energy development would be relaxed; SIOs would be Low for all LUDs and all distance zones.

Alternative 4

Like Alternative 3, this alternative would allow old-growth harvest only in Phase 1 of the existing timber sale program adaptive management strategy. In contrast with Alternative 3, it would also limit young-growth harvest to only Phase 1. Similar to Alternative 1, this alternative would include the application of the 2001 Roadless Rule.[8]

Alternative 4 would allow young-growth management only in the development LUDs. Commercial thinning is allowed in beach and estuary fringe and on high-vulnerability karst. No harvest would be allowed in RMAs. Young-growth management could include clearcutting in other areas. No change would be made to the 2008 amended Forest Plan's scenery standards for timber management activities.

The Forest Plan would include new management direction to improve flexibility in renewable energy development under this alternative. Scenery standards for renewable energy development would be relaxed; SIOs would be Low for all LUDs and all distance zones.

Alternatives Considered but not Analyzed in Detail

As mentioned above ten alternatives were considered as part of the alternative development process, and five of these alternatives were eliminated from detailed study. These five are listed below:

Develop an Amendment Using the 1982 Planning Rule procedures. This alternative was eliminated from detailed consideration because alternatives developed under the 1982 planning regulations would not be directly comparable to alternatives developed under the 2012

[7] *See id.*
[8] *Id.*

regulations, because the latter rule redefined some of the types of management direction (e.g., guidelines) that plans must contain.

Alaska Mental Health Trust Land Exchange. The proposed land exchange is not similar to the action being proposed in this Plan Amendment and does not help the Forest Service meet the purpose and need for the amendment; thus it is outside the scope of the amendment. For these reasons, the proposed Alaska Mental Health Trust Land Exchange is not analyzed in detail in a separate alternative.

State of Alaska Alternative. This alternative does not meet the purpose and need because it would require about 30 years to implement the transition to young-growth management, rather than the 10 to 15 years identified in the purpose and need. In addition, it would not increase the transition speed, relative to Alternative 1. Therefore, this alternative was not carried forward for detailed consideration in the Draft EIS.

Immediate End to Old-Growth Logging. This alternative was eliminated from detailed analysis because it does not meet the purpose and need. Specifically, ending old-growth logging immediately would not meet the need for maintaining a viable timber industry that provides jobs and opportunities for Southeast Alaska residents.

Transition to Limited Old-Growth Logging in Five Years. This alternative does not meet the purpose and need for a number of reasons:

- The phase-down of old growth would happen too rapidly and not allow the timber industry time to retool. The purpose and need for this amendment, which relies on the Secretary's July 2013 memo, identifies a 10- to 15-year period for the transition, in order to allow the industry to adapt.
- This alternative would not allow the Forest Service sufficient time to offer enough economic young-growth volume during the next 10 or more years to maintain the current timber industry, even if it could adapt that rapidly.
- This alternative is the most restrictive of the alternatives considered in terms of which young-growth stands may be harvested and there is insufficient economic young-growth available to produce 31.5 MMBF annually by the end of Year 5, the objective of the proponents of this alternative.
- Harvesting 55-year-old trees does not appear to be practical or economic in Southeast Alaska at this time. The market for large volumes of young-growth logs has not yet been demonstrated and this is especially true for small logs from 55-year-old stands.
- Recent experience and modeling indicates that the majority of trees in 55-year-old stands will produce only one log per tree. This results in higher logging costs and substantially lower revenues per acre. The proponents of this alternative assume such stands producing only one log per tree would be economic; Forest Service information suggests they are not.
- Stands producing only one log per tree would result in much higher levels of slash (because there would be many logs left behind that are not quite long enough). These slash levels may have negative effects on regeneration, wildlife movement and forage, and/or recreation and scenery.

Chapter 2 of the Final EIS contains a more thorough discussion of the alternatives not analyzed in detail.

The Environmentally Preferable Alternative

The Council on Environmental Quality (CEQ) regulations for implementing NEPA require that the Record of Decision specify "the alternative or alternatives which were considered to be

environmentally preferable" (40 CFR 1505.2(b)). This alternative has generally been interpreted to be the alternative that will promote the national environmental policy as expressed in NEPA's Section 101 (CEQ's "Forty Most-Asked Questions," 46 FR, 18026 (March 23, 1981)). Ordinarily, this means the alternative that causes the least adverse effect to the biological and physical environment. Alternative 4 of the Final EIS is the environmentally preferable alternative, because it allows the lowest amount of timber harvest and road construction; and maintains existing conditions in the greatest portion of the landscape across the Tongass.

Rationale for the Decision

How the 2012 Planning Rule Applies to this Amendment

As noted in the introduction, the Forest Service prepared the 2016 Forest Plan Amendment under the 2012 Planning Rule, which has different requirements than the 1982 Planning Rule under which the 2008 amended Forest Plan was developed. As described in Chapter 2 of the Final EIS and Chapter 6 of the Forest Plan Amendment, because of differences between the two planning rules, using the 2012 Planning Rule to amend a plan developed under an earlier rule results in a more complex plan. Furthermore, the 2012 Rule's different project consistency requirements will apply to the plan components added or modified by the amendment. All the new or modified components have been placed in Chapter 5 of the 2016 Forest Plan Amendment to make it easy to identify the components to which the new project consistency provisions apply. It is also important to explain how, in using the 2012 Rule to amend the Plan, the Agency determined what parts of the Plan to change and what substantive requirements of the 2012 Rule apply to those changes.

Several concerns were raised about these issues during the public comment period on the Draft EIS for the Plan Amendment. Some reviewers asserted the Forest Service was being arbitrary and capricious in merely picking and choosing which parts of the 2012 Rule to apply. Others asserted that all of the substantive requirements of the 2012 Rule should apply, especially the sustainability requirements of 36 CFR 219.8 and the diversity requirements of 36 CFR 219.9, and that the proposed amendment did not meet these requirements.

This amendment is the first to be developed under the 2012 Rule, and we therefore have no precedent for how to apply this rule to a plan developed under a prior rule. After careful consideration, I have concluded that the only practical way to interpret the 2012 Planning Rule's application to plan amendments is to focus on the proposed action—the responsible official's proposed action will determine the scope and scale of the change to the plan. If I were to determine the scope of an amendment based on all the possible effects on all the natural resources of the National Forest it would be impossible to complete a narrowly focused plan amendment; the proposed action would inevitably be broadened to require changes to the plan's management direction for any and every affected resource. Making such changes in conformance with the substantive provisions of the 2012 Rule would essentially cause a revision to the Plan. I do not believe that the 2012 Planning Rule was intended to make narrow amendments of plans developed under a prior rule impossible.

The 2012 Rule does not explicitly direct how changes to an "old rule" plan are to be made with "new rule" amendments, but it clearly does not change the fundamental principle that a line officer proposes and decides on an action. The 2012 Rule provides that "[p]lan amendments may be broad or narrow, depending on the need for change," and that "[t]he responsible official has the discretion to determine **whether** and **how** to amend the plan" (36 CFR 219.13(a)) (emphasis added). This provision that the responsible official has the discretion to determine how to amend the plan, has been interpreted by some people to confer discretion regarding the amendment process, but not the scope and scale of the actual proposal. Such an interpretation, however, overlooks the fact that the 2012 Rule already sets out a required process for plan amendment, at 36 CFR 219.13(b).

The 2012 Planning Rule reinforces the principle by providing that the Rule "does not compel a change to any existing plan" (36 CFR 219.17(c)). Therefore, the responsible official, not the Rule, determines the scope of any amendment. By choosing the scope and scale of the proposed plan amendment, the responsible official determines which of the 2012 Rule's substantive provisions or parts thereof are applicable. Once the responsible official determines which provisions are applicable, the changes must meet the applicable requirements.

Furthermore, the 2012 Rule continues to say at 36 CFR 219.17(c) that "None of the requirements of this part apply to projects or activities on units with plans developed or revised under a prior planning rule until the plan is revised under this part, except that projects or activities on such units must comply with the consistency requirement of § 219.15 with respect to any amendments that are developed and approved pursuant to this part." This provision reflects the Agency's intent that an amendment of an "old rule" plan will not require the entire plan to conform to the 2012 Rule's substantive provisions (§§ 219.8 through 219.11) and to be subject to the 2012 Rule's consistency provisions (§ 219.15).

The following words from the preamble for the 2012 Planning Rule show that the Department does not expect plan amendments to be comprehensive and meet all of the substantive provisions (36 CFR 219.8-219.11) of the Planning Rule: "[P]lans will be kept more current, effective, and relevant by the use of more frequent and efficient amendments, and administrative changes over the life of the plan, also reducing the amount of work needed for a full revision. Plan amendments incrementally change the plan as need arises. Plan amendments could range from project specific amendments or amendments of one plan component, to the amendment of multiple plan components." (77 FR 21237 (April 9, 2012)).

Because the responsible official has the discretion to determine whether and how to amend the plan, the responsible official has the discretion to determine the specific changes to propose and approve. The responsible official also has the duty to determine the purpose and need for the proposal. The purpose and need for the specific changes proposed to the Tongass Plan do not support making extensive changes to conform the Plan to meet all the substantive provisions of the 2012 Planning Rule (§§219.8-219.11). In this case, the 2016 Tongass Plan Amendment appropriately meets the applicable provisions of 36 CFR 219.11 and 219.10(a)(2) and (a)(3) and is not opposed to any of the other substantive provisions of the 2012 Rule.

Scope and Scale of the Amendment

The Responsible Official's determination of the scope and scale of the 2016 Forest Plan Amendment began with the September 30, 2013 memorandum titled *Tongass Land and Resource Management Plan 5-Year Review Determination*. Based on events that had transpired since the 2008 Forest Plan Amendment was adopted, and on public comments received during the 5-Year Review, Tongass Forest Supervisor Forrest Cole determined in that memorandum that the Tongass Forest Plan needed to be changed. The changes would respond to the Secretary's memorandum on the transition to young-growth management, and be based on recommendations to be developed by the Tongass Advisory Committee, which was being established at the time. The Forest Supervisor's determination also noted that: "We will also continue to incorporate new information to be considered in any modification of the Forest Plan as determined through annual monitoring as well as comments made during the 5-Year Review Process." The Forest Supervisor's determination also included a summary of those public comments, many of which focused on high energy costs in Southeast Alaska communities; how the 2008 amended Forest Plan, especially the TUS LUD, impeded development of renewable energy projects, especially hydropower; and recommended changes to the 2008 amended Forest Plan to promote renewable energy projects and associated facilities such as transmission lines and roads to facilitate economic development and reduce the use of fossil fuels.

The next step in documenting the need for change was the publication in the *Federal Register* of the notice of intent to prepare an environmental impact statement (NOI) on May 27, 2014, as noted above. The NOI stated that: "Based on that [recently completed 5-year] review and the Secretary's Memorandum [regarding the transition to young-growth management], the Forest

Service has determined that the Forest Plan needs to be changed to accomplish the transition to a timber sale program on the Tongass based primarily on young-growth management within the next 10 to 15 years…." The NOI described the purpose and need for action as describing in an EIS the effects of making changes to the Plan to accomplish the transition as provided in the Secretary's Memorandum, and stated the EIS: "[W]ill also evaluate other changes suggested in the 5-year review." The NOI described the proposed action primarily as a response to the Secretary's Memorandum, which came out of the previous five to ten years of public input, but also stated that: "The amendment process will address … whether changes are needed to provide for development of hydropower."

The scope and scale of the amendment was further developed by the Forest Service and discussed in Chapter 1 of the Draft EIS, which stated that the purpose and need for amending the Tongass Plan is to accelerate the transition to young-growth management as described in the Secretary's Memorandum, and to: "[M]ake the development of renewable energy resources more permissible, including considering access and utility corridors to stimulate economic development in Southeast Alaska communities, and provide low-carbon energy alternatives, thereby displacing the use of fossil fuel." Accordingly, changes in both of these categories were included in the Proposed Action (Alternative 2) of the Draft EIS, and all the other action alternatives.

Other changes analyzed were limited to technical corrections or corrections related to new legal or statutory requirements: conforming the Tongass Forest Plan to the reapplication of the 2001 Roadless Rule to the Tongass; conveyance of approximately 70,000 acres of land to the Sealaska Corporation; consolidating Plan amendments made in project-level decisions since 2008; and making minor clarifications and corrections throughout the Plan.

Based on my review of the Final EIS and the planning record, and in light of the many developments related to the transition to young-growth management as described in the introduction to this ROD, I believe the scope and scale of the 2016 Tongass Forest Plan Amendment properly included changes needed to fully respond to the Secretary's Memorandum regarding the transition to young-growth management, and the changes needed to alleviate Plan-related impediments to renewable energy production, including the removal of the TUS LUD. I believe focusing on the timber program and renewable energy opportunities properly reflected a targeted scope and scale for the amendment to address two primary contributions to social and economic sustainability in the region, and to improve ecological sustainability as described in the Secretary's 2013 memorandum. Furthermore, in order to accomplish the Secretary's goal of completing the Forest Plan Amendment in a timeframe that supports accomplishing the transition in 10-15 years, I believe it was appropriate to reject proposed changes to the Plan that were not directly related to the purpose and need as described in the Chapter 1 of the Final EIS.

As described above, the scope and scale of the 2016 Tongass Forest Plan Amendment, as reflected in all the action alternatives analyzed in detail in the Final EIS, including the proposed action (Alternative 2), includes changes to accelerate the transition to young-growth management; alleviate Plan-related impediments to renewable energy production by removing the TUS LUD and making other changes; make conforming changes to the LUD maps to reflect the conveyance of land to the Sealaska Corporation; and make other minor updates, clarifications, and corrections.

As discussed earlier in this ROD, the Forest Service believes the scope and scale of the change to the plan is determined by the Responsible Official's proposed action. Determining the scope and scale of an amendment based on all the possible effects on all the natural resources of the National Forest would make it impossible to complete a narrowly focused plan amendment; the responsible official's proposed action would inevitably be broadened to require changes to the plan's management direction for any and every affected resource.

In this case, because the changes included in the proposed action (plus the other action alternatives included in the Draft EIS, and the Selected Alternative) are limited as described above, the only substantive requirements of the 2012 Planning Rule that apply are those specified in 36 CFR 219.11, and 219.10(a)(2) and (a)(3). Based on my review of the Final EIS and the project record, I have determined that these provisions – 36 CFR 219.11, and

219.10(a)(2) and (a)(3) – are the only applicable substantive requirements of the 2012 Planning Rule.

Young-Growth Transition

As described in the previous section of this ROD and Chapter 1 of the Final EIS, this Forest Plan Amendment responds to the Secretary of Agriculture's Memorandum 1044-009, *Addressing Sustainable Forestry in Southeast Alaska*, which called on the Forest Service to transition the timber program on the Tongass National Forest from one based primarily on the harvest of old-growth timber to one based on young growth within 10-15 years. As also noted in the introduction, the Secretary's direction was an outgrowth of years of collaborative efforts in Southeast Alaska to develop a future for the Tongass, and all of Southeast Alaska, in which the controversy that has surrounded the Tongass timber program for decades might be reduced, and management of the Forest could contribute more fully to the ecological, social, and economic sustainability of the local communities throughout the region.

The Forest Service has acknowledged the increasing interest in transitioning the Tongass to young-growth management for years, as noted by Regional Forester Dennis Bschor in the ROD for the 2008 Forest Plan Amendment:

> *The management of young-growth forest stands is becoming more important as young trees located in previously harvested areas mature, and as interest grows in transitioning the timber industry in Southeast Alaska from one based on the harvest of old-growth forest stands to one based on the harvest of young growth. Young-growth forest stands are those that grow after the trees in an area have been removed by timber harvest activities or a natural disturbance event such as a landslide or windstorm. A substantial amount of new information has become available regarding the management of young-growth forests since the 1997 Forest Plan was adopted. For example, forbs and shrub populations are more extensive in thinned young-growth stands than was assumed in previous forest planning efforts. This information is relevant for the analysis of effects of timber harvest on species like the Sitka black-tailed deer that feed on forbs and shrubs. Management practices of young-growth forest stands, such as thinning, can substantially improve the forage for deer, and also promote better growth of the remaining trees for future timber harvest. Precommercial thinning involves cutting most of the small trees that naturally grow back in areas where the old-growth trees have been removed, usually about 15 to 25 years after the initial removal. When thinning is done at this stage, the young-growth trees removed are so small that they usually have no commercial value, so it must be paid for by appropriated funds. Similarly, thinning of young-growth stands that are 50 to 70 years old can yield commercially marketable trees – hence the name "commercial thinning" – while also improving forage for wildlife and higher timber yields in the future. Many organizations have encouraged the Forest Service to transition the timber program on the Tongass from one based on the harvest of old-growth forest to one that harvests young-growth stands. Such a transition would enhance the protection of old-growth forest habitat.*
>
> *For all of these reasons, I support the transition of the Tongass timber program to one based more on the harvest of young-growth stands. The amended Forest Plan has been carefully reviewed to ensure that it contains no provisions that might impede such a transition. Young growth could potentially comprise a substantial portion of the Tongass timber program in as little as three decades, with initial young-growth operations beginning in earnest by the end of the current planning cycle. The ultimate success of this effort, however, will depend on several factors, including investments by the timber industry in milling equipment designed for smaller young-growth trees, integration of the industry to effectively process all products harvested from the Forest, and funding decisions made by Congress.* (2008 ROD, pp. 49-50)

Since 2008, much more information has become available about the extent, location, age, market potential, and other aspects of the young-growth timber stands on the Tongass, as displayed in

the Final EIS and contained in the project record. That information convinces me that the transition to young-growth management can improve the sustainability of Forest Service management of the Tongass, which will improve the sustainability of Southeast Alaska.

Because the concept of sustainability is widely accepted to include ecological, social, and economic components, as reflected in the Secretary's 2013 memorandum, I want to explore those components in more depth. In some cases, the language of the 2012 Planning Rule helps explain the meaning of concepts such as social sustainability. While discussing how the transition to young growth supports economic, ecological, and social sustainability, and using the 2012 Rule's language to help explain the latter term, I want to be clear that this narrowly focused amendment is not applying the 2012 Planning Rule's provisions regarding ecological, social, and economic sustainability specified in 36 CFR 219.8 – as explained earlier in this ROD, a narrow amendment is not expected to meet, on its own, all of the requirements in the 2012 Rule. However, as explained below, the Tongass Plan as amended is wholly within the spirit of the 2012 Rule's sustainability intent and the principles described in 36 CFR 219.1(c).

Ecological Sustainability

While the public comments on the Draft EIS include many concerns about the environmental effects of the Tongass timber program, concerns regarding the effects of harvesting timber on wildlife habitat are among the most common and most serious concerns. These concerns are described and addressed more thoroughly in a subsequent portion of this ROD (see Wildlife Habitat and the Tongass Old-growth Habitat Conservation Strategy), but it is important to note here that the vast majority of wildlife species on the Tongass depend at least partly on old-growth forest. Indeed, the Tongass Conservation Strategy was built into the 1997 Tongass Forest Plan to satisfy the habitat requirements of key species associated with old-growth forest, with the understanding that if the needs of these species were being addressed, primarily through a network of old-growth habitat reserves (the coarse filter), other species' needs would either also be met, or in some cases would require additional management direction requiring mitigation measures specific to each species (the fine filter).

All these concerns relate to the potential loss of old-growth habitat. The Selected Alternative addresses these concerns in several ways. It preserves the integrity of the Tongass Conservation Strategy, and substantially reduces the harvest of old-growth timber over time. In addition, the Selected Alternative accelerates the development of old-growth characteristics in some young-growth timber stands by allowing thinning and other partial harvest prescriptions in areas where such practices have not been allowed. Moreover, the increase in young-growth harvest under the Selected Alternative is not expected to impose new risks to wildlife because no species that depend primarily on young-growth habitat have been identified on the Tongass. Thus, the transition to young-growth management under the Selected Alternative will reduce overall risks to wildlife, improving the ecological sustainability of the timber management program on the Tongass. See sections below on the Effects of the Selected Alternative on the Tongass Old Growth Conservation Strategy and on Certain Species.

Social Sustainability

While there may be several definitions of the term "social sustainability," I believe the definition in the 2012 Planning Rule to be most useful for discussion purposes because the amendment has been developed under the 2012 Rule. In 36 CFR 219.19, the 2012 Rule states that this term "refers to the capability of society to support the network of relationships, traditions, culture, and activities that connect people to the land and to one another."

The history of appeals and litigation over the timber program on the Tongass demonstrates that the program has long been very controversial. The divisive nature of the conflict over the timber program has frayed the social fabric of Southeast Alaska, pitting communities with a substantial number of timber industry jobs against those that rely more on fishing, subsistence, recreation, and tourism. Differences of opinion within communities between those with a more pro-development outlook and those who favor a more preservationist approach have also been

intense and divisive. In some communities, people tend to associate mainly with those who share their views, encountering different viewpoints mainly at public meetings or in the media.

Again, many of the concerns raised by the program's critics have been based on the habitat effects of harvesting old growth, including concerns regarding the impacts of such harvest on subsistence uses of the Forest. In addition, concerns have often been raised about perceived conflicts between timber harvest and other development activities, especially those in roadless watersheds, and recreation and tourism activities that often depend on undisturbed watersheds.

By transitioning away from the harvest of old-growth timber, I expect adoption of the Selected Alternative to improve the capability of the communities in Southeast Alaska to support the network of relationships, traditions, culture, and activities that connect people to the Tongass National Forest and support vibrant communities.

Economic Sustainability

I expect adoption of the Selected Alternative to improve the economic sustainability of the Tongass timber program, and of Southeast Alaska, in several ways. As noted in the introduction, the Forest Service's Transition Framework is a broad effort to improve economic diversification and competitiveness in Southeast Alaska, of which the transition to young-growth management is an essential component. The renewable energy features of the Selected Alternative are also directly targeted to reduce existing impediments to economic diversification facing all the communities in the region that rely on diesel generators for electric power. In addition, by reducing the controversy surrounding the Tongass timber program, the transition to young-growth management should stabilize the supply of timber available from the Tongass to the local forest products industry, enabling the industry to plan with greater confidence and lower risk. Together these effects will improve the sustainability of the industry throughout the region.

Renewable Energy

The provisions in the Selected Alternative that ease the complexity of applying plan direction to proposed renewable energy projects were developed in response to the purpose and need of the Forest Plan Amendment. As described in the introduction, these provisions are also an inherent part of the Transition Framework, and well within the scope of the Secretary's July 2013 memorandum.

As previously noted, the purpose and need for the 2016 Forest Plan Amendment includes responding to the Five-Year Review of the Tongass Forest Plan, completed in 2013, which identified a strong desire to improve the ability of proponents of renewable energy development projects such as hydropower, geothermal, and wave energy projects to obtain permits from the Forest Service. Concerns were expressed that the 2008 Plan's direction regarding transportation and utility systems (TUS), including the TUS overlay LUD, were overly complex, confusing, and difficult to implement, creating an impediment to development of hydropower, other types of renewable energy, and transmission lines needed to connect communities to sources of electric power. Alleviating plan-related impediments to considering renewable energy projects is a key consideration to reduce the adverse effect of high energy costs on economic diversification and sustainable economic development in Southeast Alaska.

The direction in the amended Plan replaces the renewable energy direction in the TUS LUD in Chapter 3 of the 2008 amended Forest Plan, and removes that overlay LUD to address these plan-related impediments. At the same time, the addition of plan components for renewable energy does not change the need to ensure that resource protection measures are incorporated throughout project-level planning, construction, and operation of renewable energy sites. Renewable energy resources will continue to be developed in a manner that maintains and protects NFS lands and resources. The suitability direction ensures development of renewable energy projects integrates social, economic, and ecological considerations. Finally, to ensure Southeast Alaska has the benefit of sustainable economic development, the plan components provide for a priority consideration of renewable energy projects based on whether the projects

lead to a decrease in the number of Southeast Alaska rural communities powered by diesel generators, an increase in energy capacity, efficiency, or storage at existing projects, or an export of renewable energy resources without power benefitting Southeast Alaska communities.

Inventoried Roadless Areas

As described in the introduction to this ROD and in Chapter 3 of the Final EIS, management of roadless areas on the Tongass has been a controversial issue since at least 2001 when the Roadless Rule was promulgated. Several lawsuits have been filed; court decisions have been rendered, appealed, remanded, and reversed; regulations specific to the Tongass have been developed and litigated, struck down, reinstated, and struck down again. During the development of the Forest Plan Amendment, I was struck by the intensity with which some members of the public encouraged me to propose regulations to modify application of the Roadless Rule to the Tongass or to once again exempt the Tongass from it. With equal intensity, other members of the public demanded that the status quo – application of the Roadless Rule to the Tongass – be maintained by rejecting any alternative that required additional rulemaking to modify the Roadless Rule's application to the Tongass.

Based on my review of the Final EIS and the project record, I believe the best way to bring stability to the management of roadless areas on the Tongass is to not recommend any modifications to the Roadless Rule. Harvest in roadless areas is not necessary to meet the purpose and need of the amendment. The Selected Alternative can be implemented without proposing any new regulations while still achieving transition objectives.

Additionally, the Roadless Rule provides that the construction or reconstruction of roads in an inventoried roadless area may be authorized under certain circumstances. In May, 2012, the Chief of the Forest Service identified a process where the Chief reviews and may authorize certain activities to occur within roadless areas, when consistent with the Roadless Rule. Projects are reviewed by the Chief to ensure the Forest Service is applying a consistent approach to implementation of the 2001 Roadless Rule and that the agency is doing all it can to protect roadless area characteristics. Since 2012, the Tongass has requested and received timely approval from the Chief for qualifying activities within roadless areas, including those in support of hydroelectric energy projects and transmission, and road rights-of-way under applicable statutes. Accomplishing the goals of the transition through the Selected Alternative will not be prevented by continued application of the Roadless Rule to the Tongass.

Wildlife Habitat and the Tongass Old-growth Habitat Conservation Strategy

Overview

Concerns related to the effects of forest management on wildlife habitat and the effectiveness of the Tongass Old-growth Habitat Conservation Strategy ("Conservation Strategy") were identified as a significant issue during the scoping process for the 2016 Tongass Forest Plan Amendment. These issues were analyzed in great detail in the Draft EIS, and several reviewers responded with substantial remaining concerns. Some reviewers believe the preferred alternative displayed in the Draft EIS does not meet the viability requirements of 1982 Rule (referring to section 219.19 of the 1982 Rule). Others believe the proposed amendment's changes to the network of old-growth reserves would adversely affect the Conservation Strategy, and therefore this Amendment should conform to the diversity requirements in 36 CFR 219.9 of the 2012 Rule.

The Tongass Land and Resource Management Plan was developed using the 1982 Rule. No obligations exist from the 1982 Rule, as that rule no longer exists (36 CFR 219.17(c)). However, the 2008 amended Forest Plan's explicit direction "to maintain viable populations of existing native and desirable non-native [wildlife] species well-distributed in the planning area" is not being changed in this Forest Plan Amendment.

The Selected Alternative is focused on accelerating the transition to young-growth timber harvest. The timber focus of the amendment therefore causes the 2012 Rule's timber provisions, at section 219.11, to apply. Because the Selected Alternative maintains the integrity the Conservation Strategy it does not require the application of section 219.9. Even so, the Conservation Strategy in the Forest Plan meets the intent of the 2012 Planning Rule to provide the ecological conditions to both maintain the diversity of plant and animal communities and support the persistence of native species in the plan area. The amended Plan also provides the additional species-specific plan components to maintain viable populations of existing native and desirable non-native wildlife species well-distributed in the plan area. The Selected Alternative will therefore be at least as protective of the diversity of plant and animal communities as 36 CFR 219.9.

The Selected Alternative includes plan components to improve habitat conditions in young-growth stands and, as part of that direction, to mitigate effects on fish and wildlife, consistent with 36 CFR 219.11(c) and 36 CFR 219.11(d)(3). This amendment triggers section 219.11(d)(3), which requires that timber harvest "would be carried out in a manner consistent with the protection of soil, watershed, fish, wildlife, recreation, and aesthetic resources." Also, section 219.11(c) gives discretion to allow timber harvest for purposes other than timber production including improving fish and wildlife habitat. The amended Plan therefore includes standards and guidelines (S&Gs) to mitigate effects of harvest on fish and wildlife.

The Forest Plan as amended will continue to fulfill our obligations under the NFMA to "provide for diversity of plant and animal communities based on the suitability and capability of the specific land area to meet overall multiple-use objectives." (16 U.S.C. 1604(g)(3)(B)). As discussed below, the Plan as amended will continue to provide for the diversity of plant and animal communities through management of both ecosystem conditions (the network of old-growth reserves in the Conservation Strategy) and species-specific conditions (protective S&Gs) as set forth in the 2012 Planning Rule at 36 CFR 219.9. This approach is sometimes characterized as the "coarse-filter/fine-filter approach" to conservation.

The coarse-filter/fine-filter approach is a complementary ecosystem and species-specific approach to provide for the diversity of plant and animal communities and the long-term persistence of native species in the plan area. This approach is a well-developed concept in the scientific literature and has broad support from the scientific community. Indeed, this approach has been used on the Tongass since 1997.

The coarse filter focuses on ecological integrity, maintaining or restoring characteristics of the environment as expressed by features such as composition, structure, function, and connectivity of ecosystems, to maintain diversity and persistence of native species. Land management units with ecosystems exhibiting a high level of integrity or with plans that maintain and restore ecosystems are assumed to support the conservation of the vast majority of species.

The fine filter, and associated plan components, complements the coarse filter by providing for additional specific habitat needs or other ecological conditions of at-risk species, when the responsible official determines those needs are not met through the coarse filter.

Implementing the viability requirement of the now superseded planning regulations, the 1997 Forest Plan developed a coarse-filter/fine-filter approach to wildlife conservation and integrated several elements of this approach into its Tongass Old-growth Habitat Conservation Strategy. These elements include the network of OGRs and the non-development LUDs as the coarse filter, and the fine filter that includes all S&Gs that apply to the development LUDs and mitigate adverse effects on wildlife habitat from development activities. The amended Plan retains this approach, including a standard requiring the plan to provide the abundance and distribution of habitat necessary to maintain viable populations of existing native and desirable non-native species well-distributed in the plan area.

Below is an explanation of the Conservation Strategy, the Selected Alternative, the effects of the Selected Alternative on the Conservation Strategy, and the effects of the Selected Alternative to species.

The Tongass Old-growth Habitat Conservation Strategy

The Tongass Old-growth Habitat Conservation Strategy was initially developed as part of the 1997 plan revision process. It was designed through a collaborative effort by a broad range of scientists, Alaska Department of Fish and Game, and U.S. Fish and Wildlife Service, and underwent intensive peer review. Like the 2012 Planning Rule's approach to ecological sustainability outlined at 219.9, the Tongass National Forest Old-growth Habitat Conservation Strategy uses the coarse-filter/fine-filter approach to maintain ecological integrity while allowing multiple uses to occur.

The Agency designed the Conservation Strategy to provide the spatial extent, distribution, and connectivity of old-growth forest ecosystems to support well-distributed, viable populations of old-growth associated species. Based on principles of conservation, a network of large, medium, and small sized OGRs allocated to the Old-Growth Habitat LUD plus all small islands less than 1,000 acres remain intact. This largely undisturbed habitat is distributed across the Tongass National Forest. In addition to the broad, ecosystem-focused OGRs, additional conservation measures are provided through the standards and guidelines that apply to timber harvest and all other development activities in the "matrix," the lands where timber harvest is allowed (Chapter 3 of the Final EIS).

The conservation strategy was designed to take into account extensive timber harvest on non-NFS lands and relied little on non-NFS lands to maintain ecological integrity (Chapter 3 of the Final EIS). The Conservation Strategy maintains habitat for well-distributed, viable wildlife populations in the plan area (Final EIS, Appendix D). Before the Conservation Strategy was adopted, a series of expert panels prepared viability risk assessments for the species the Conservation Strategy was designed to protect. Using the panels' assessments, the Agency determined that there was a moderate to very high probability of maintaining sufficient habitat to maintain viable populations of wildlife species on the Tongass under the 1997 Plan.

The Agency believes those probability estimates are very conservative because the panels of experts assumed timber harvest at 267 MMBF annually for 100 consecutive years, with no change in applicable S&Gs (ROD 2008, p. 19). Harvest at that level has not occurred, and under the Selected Alternative, the annual Projected Timber Sale Quantity will be 46 MMBF during the first decade and 72 MMBF during the second decade (Chapter 3 of the Final EIS).

The old-growth reserves and non-development LUDs retain ecosystem integrity by maintaining a functional and interconnected ecosystem. The standards and guidelines applicable to matrix lands ensure ecological conditions that support at-risk species and other old-growth associated species. The plan includes specific direction to provide habitat conditions for many species, including: bald eagle, brown bear, goshawk, heron, marbled murrelet, marten, mountain goat, deer, and wolf.

The 2008 Tongass Forest Plan Amendment added a forest-wide legacy forest structure standard, replacing the 1997 goshawk foraging and marten habitat S&Gs. This standard applies to watersheds with high levels of timber harvest. It requires the retention of forest structural components such as patches of large trees, downed logs, and snags (dead trees) after timber harvest.

The 2008 amended Plan also enhanced the network of small OGRs by reconfiguring the network based on an interagency review to increase habitat protection and to reduce operational conflicts. In addition, the 2008 amended Plan increased the amount of land allocated to other non-development LUDs by 69,000 acres.

In 2015, the National Defense Authorization Act for Fiscal Year 2015 conveyed 69,585 acres of NFS land to the Sealaska Native Corporation. To compensate for the loss of OGR lands, the Selected Alternative includes boundary modifications to several OGRs that result in a net increase of 6,171 acres of OGR and 7,148 acres of productive old growth (POG) forest included in the reserve system from existing (post-conveyance) levels (Final EIS, Appendix E).

The Selected Alternative

The Selected Alternative accelerates the transition to young-growth timber harvest and alleviates Plan-related impediments to the production of renewable energy. The Selected Alternative maintains the integrity of the Conservation Strategy. To ensure the transition to predominantly young-growth harvest does not adversely affect wildlife, the Selected Alternative includes S&Gs to improve wildlife habitat conditions and long–term ecological function in young-growth stands (36 CFR 219.11(d)). The Selected Alternative also adds standards to protect the Aleutian Tern and black oystercatcher, which were identified as sensitive species since the Forest Plan was last amended in 2008. It retains S&Gs that protect other species despite the fact that they are no longer identified as sensitive species.

The Selected Alternative accelerates the transition time from primarily old-growth harvest to primarily young-growth harvest from about 32 years to about 16 years, resulting in a reduction in old-growth forest harvest. The Selected Alternative will change the suitability of specific young-growth stands in beach and estuary fringe, old-growth habitat LUD, and riparian areas from “not suitable for timber production” to “suitable for timber production” (Final EIS, Appendix D).

The Selected Alternative will relax the S&Gs for the scenic integrity objectives to allow additional harvest. Given that these non-wildlife S&Gs are not part of the Conservation Strategy, relaxing these S&Gs will have no effect on the functioning of the Conservation Strategy (Final EIS, Appendix D).By shifting away from old-growth harvest, the Tongass will preserve undeveloped land in unroaded areas, contributing to unfragmented wildlife habitats and intact watersheds. Young-growth timber harvest will occur within the previously harvested footprint and maximizes the use of existing roads to access young-growth stands. The Selected Alternative identifies 11 percent of the productive forest land as suitable. However, the Selected Alternative will allow the harvest of up to only 0.8 percent of the POG after 100 years. Under the Selected Alternative, the annual Projected Timber Sale Quantity will be 46 MMBF during the first decade and 72 MMBF during the second decade (Chapter 3 of the Final EIS). Therefore, more old-growth is retained under the Selected Alternative than under the current plan (Final EIS, Appendix D).

Under the Selected Alternative, 91 percent of the original POG forest is anticipated to remain over the next 100 years. This equates to approximately 400,000 more acres old-growth than were assumed during the development and evaluation of the Conservation Strategy. Likewise, under the 1997 Forest Plan approximately 8,500 miles of roads were anticipated to exist on NFS lands by 2095, whereas under the Selected Alternative less than 6,100 total miles of roads are anticipated to exist by 2095. This translates to substantially lower road densities than under the 1997 Plan. The additional area of POG will function as additional reserves, enhancing the existing reserves, and increasing the habitat quality when located around harvest units. Thus, the substantially greater spatial extent of old-growth forest on the landscape and fewer roads across the planning area will outweigh the local, adverse effects of young-growth harvest proposed by the Selected Alternative in the Old-growth Habitat LUD, the beach and estuary fringe, and RMAs (Final EIS, Appendix D).

Effects of the Amendment on the Tongass Conservation Strategy

The Agency has disclosed the effects of the Selected Alternative on plant and animal communities in the environmental impact statement. The Conservation Strategy, particularly the extent and distribution of old-growth habitat, has been found to be stronger than anticipated in the analysis conducted as part of the 1997 Plan Revision. Past and projected harvest of old-growth forest is far lower than predicted in 1997. In addition, the Forest Plan Amendment designates Inventoried Roadless Areas, even if part of the land is within a development LUD, as not suited for timber production, subject to the District Court of Alaska’s May 24, 2011 judgment reinstating the Roadless Rule on the Tongass (*Organized Village of Kake v. USDA*, No. 1:09-cv-00023 (D. Alaska May 24, 2011), *aff’d en banc* 795 F.3d 956 (9th Cir. 2015), *cert. denied*, 136 S.Ct. 1509 (2016)). Timber harvest in these roadless areas is generally prohibited (Appendix D). The forest contains about 111,000 more acres of POG today, than was predicted in 1997 (Final EIS, Appendix D). Today, 92 percent of the original productive old growth that was inventoried in 1954

(5.4 million acres) is still present on the Tongass. Under the Selected Alternative, 91 percent will remain in 100 years (Chapter 3 of the Final EIS).

Within the Old-growth Habitat LUD and other non-development LUDs, young-growth forest stands do have ecological values which contribute to the functioning of the Old Growth Reserve system. Under the Selected Alternative, openings created by even-aged timber harvest will provide abundant forage for deer as sunlight reaches the forest floor enhancing the growth of forage (Chapter 3 of the Final EIS). In addition, thinning of young-growth stands in the stem exclusion stage will also improve the forage for deer for 15 to 25 years (Chapter 3 of the Final EIS). However, when it was developed in 1997, the Conservation Strategy was based on the assumption that it would maintain a functional and interconnected old-growth forest ecosystem without the additional habitat quality contribution of previously harvested areas, either as young growth or over time as these stands matured to old-growth condition (Final EIS, Appendix D). For this reason, and due to the spatial distribution and quantity of suitable young-growth harvest in the non-development LUDs, harvest of young growth in these areas will pose a very low risk to the function and integrity of the Conservation Strategy, which maintains old-growth associated species (e.g., marten, goshawks, flying squirrels) (Final EIS, Appendix D). Therefore, there will be no change to the functioning of this contributing element of the Conservation Strategy (Final EIS, Appendix D). Across the Forest, including development and non-development LUDs, the Selected Alternative will emulate the natural scale and distribution of disturbance patterns on the landscape, and over the long term will promote the development of old-growth characteristics in some harvested young-growth stands (Chapter 3 of the Final EIS).

The beach and estuary fringe is a 1,000-foot-wide corridor adjacent to saltwater shorelines; it consists of productive old growth, unproductive forest, young-growth forests, and non-forest types. Under the Selected Alternative, due to the very local nature of effects, the beach and estuary fringe will continue to act as an ecological transition zone between interior forest and saltwater influences, maintain landscape connectivity, and provide benefits to the marine environment across the planning area, including sustaining habitats for goshawks and bald eagles (Final EIS, Appendix D). Therefore, there will be no measurable change to the functioning of this contributing element of the Conservation Strategy (Final EIS, Appendix D).

Under the Selected Alternative, the riparian areas will continue to maintain ecological functions of aquatic and terrestrial habitats, maintain water quality, and provide connectivity across the planning area for all the alternatives due to the local and short term nature of effects to the riparian areas (Final EIS, Appendix D). Therefore, there will be no measurable change to the functioning of this contributing element of the Conservation Strategy (Final EIS, Appendix D).

Most importantly, as noted above, approximately 400,000 additional acres of POG forest will exist over the long term across the landscape, than were assumed to exist during the evaluation and development of the Conservation Strategy. This additional area of POG will function as additional reserves, enhancing the existing reserves, and increasing the habitat quality of the matrix when located around harvest units. As such, the substantially greater spatial extent of old-growth forest on the landscape and fewer roads across the planning area will outweigh the local, adverse effects of young-growth harvest under the Selected Alternative.

Effects of the Selected Alternative on Species

Across the landscape of Federal and non-Federal lands within the boundary of the Tongass, ecological conditions (habitat) support viable populations of fish, plants, and wildlife. The likelihood of a wildlife population persisting over time has been suggested to be related to maintaining 20 to 50 percent of the habitat on the landscape (Chapter 3 of the Final EIS). Considering both NFS and non-NFS lands, all of the biogeographic provinces on the Tongass are projected to maintain at least 56 percent of the original (1954) POG after 100 years of Forest Plan implementation under the Selected Alternative, and 19 of the 21 biogeographic provinces are projected to maintain at least 80 percent (Chapter 3 of the Final EIS).

The Agency prepared a Biological Evaluation (BE) to analyze and document the effects on sensitive species of all the alternatives analyzed in detail in the Final EIS. The review included

consideration of the following sensitive species: Steller sea lion (Eastern Alaskan DPS), Queen Charlotte goshawk, Aleutian tern, black oystercatcher, and Kittlitz's murrelet. The overall findings for all sensitive species was that the Forest Plan, as amended, may affect individuals but is not likely to result in a trend toward Federal listing or loss of viability of the species.

Allowing harvest in young-growth stands in the Old-growth Habitat LUD and other non-development LUDs, the beach and estuary fringe, and the riparian management areas may reduce the local function of these areas for some species in the short run, but opening up these areas for commercial harvest will also allow for commercial thinning and other partial harvest prescriptions, which can improve habitat quality in lower value stands (Chapter 3 of the Final EIS).

The Selected Alternative will maintain the integrity of the Conservation Strategy by maintaining the functioning of the system of old-growth reserves in the Old-growth Habitat LUD and other non-development LUDs (Final EIS, Appendix D). Also, the effects to the beach and estuary fringe will be short-term (10-15 years) after each entry and more localized in these areas (Final EIS, Appendix D. In addition, because of the local nature of effects under the Selected Alternative, riparian areas will continue to maintain aquatic and terrestrial habitats, maintain water quality, and provide landscape connectivity across the planning area (Final EIS Appendix D).

In addition, "all of the alternatives are expected to maintain a functional and interconnected old-growth ecosystem, capable of supporting well-distributed, viable wildlife populations across the planning area; therefore none of them are expected to increase the likelihood of species listing under the ESA." (Final EIS, Appendix D)

A series of wildlife panel assessments were conducted to evaluate the likelihood that plan alternatives for the 1997 Forest Plan would maintain habitat sufficient to support viable and well-distributed populations of select wildlife species across the planning area over a 100-year horizon. Panel assessments were conducted for goshawks, wolves, marten, brown bears, marbled murrelets, and "other terrestrial mammals" (including endemic species such as the Prince of Wales flying squirrel). These species or species groups were selected because collectively their ecologies were thought to incorporate the breadth of forest habitat features and other attributes of environmental variation represented across the Forest.

The panel assessment process was designed to provide the context for, and guide the development of, the Forest Plan Conservation Strategy. Through each panel's evaluation, habitat conditions and/or management components (e.g., reserves, beach buffers) emerged as being important to providing sufficient habitat to maintain well-distributed, viable populations of each species or species group. The results of the panel assessments are included in Appendix N to the 1997 Forest Plan Final EIS (USDA Forest Service 1997b) and summarized (and supplemented with new information) in Appendix D of the 2008 Forest Plan FEIS (USDA Forest Service 2008b).

Although the panel assessments do not directly address the alternatives evaluated in this EIS, the ability of the proposed Forest Plan Amendment to continue to maintain viable, well-distributed wildlife populations can be assessed based on two related premises. First, it can be assumed that if the integrity of the Forest Plan Conservation Strategy is maintained, there is a high likelihood that the Forest Plan Amendment would continue to provide habitat sufficient to support viable well-distributed wildlife populations and therefore maintain the diversity of plant and animal communities. Second, if the Forest Plan Amendment maintains the key habitat factors identified as important to maintaining viability by the panel assessments for each species or species group, then there is a high likelihood that the Forest Plan Amendment would be at least as likely as the 2008 amended Forest Plan to maintain viable, well-distributed populations of these species or species groups in the planning area.

A detailed analysis of the Forest Plan Conservation Strategy, indicating that none of the alternatives would compromise its integrity, is included in Appendix D of the Final EIS for this Plan Amendment.

The transition to young-growth harvest under the Selected Alternative will have a beneficial effect to wildlife species associated with old-growth forest by reducing the amount of old-growth timber harvest that would occur over the planning horizon. When developed for the 1997 Forest Plan, the Conservation Strategy was based on an assumed initial old-growth timber harvest rate of about 83,400 acres per decade. Over a period of 100 years (1996 to 2095), approximately 474,000 acres would be harvested. In contrast, the actual area harvested from 1996 to 2015 plus the projected harvest of old-growth through 2095 under the Selected Alternative would result in a total of approximately 80,000 acres of old-growth harvest. Thus, the transition to young-growth harvest, together with other changes to Tongass forest management (especially the 2001 Roadless Rule), would result in about 400,000 acres of old-growth forest remaining in 2095 than was projected to have been harvested by the panels assessing viability for the 1997 plan (Final EIS, Chapter 3, Wildlife and Appendix D). Therefore, many OGRs and non-Development LUDs would be surrounded by additional unharvested areas of POG forest and matrix lands would contain a substantially greater amount of POG forest than the amounts assumed during the development of the Forest Plan Conservation Strategy. Thus, panel assessment conclusions were based on assumptions that the Tongass would support far less old-growth forest than will be realized under the Selected Alternative.

The Selected Alternative meets the applicable substantive provisions of the 2012 Planning Rule, i.e., 36 CFR 219.11. In addition, the amended Forest Plan will meet the intent, if not the letter, of other substantive provisions of the 2012 Rule, such as the diversity provisions of 36 CFR 219.9. The amended Plan will retain the underlying plan's coarse/fine filter approach to maintain ecological integrity and provide ecological conditions for at-risk species. As an example, the amended Plan retains the course- and fine-filter plan components for the Alexander Archipelago wolf from the 2008 Amended Plan. This approach provides the ecological conditions to maintain a viable population of the species within the plan area—the same complementary ecosystem and species-specific approach adopted in the 2012 Planning Rule. To be sure, the best available scientific information does not indicate a substantial concern about the species' capability to persist over the long-term in the plan area, such that it would be identified as a Species of Conservation Concern as defined by the 2012 Rule (see U.S. Fish and Wildlife Service "Not Warranted" 12-Month Finding on the Alexander Archipelago Wolf, 81 Fed. Reg. 435, Jan. 6, 2016; 36 CFR 219.9(c)).

The Selected Alternative will retain the ability of the Conservation Strategy to maintain a functional and interconnected old-growth ecosystem across the planning area and the overall functioning of the Conservation Strategy in terms of its ability to maintain viable, well-distributed populations of wildlife across the planning area will not be affected. The amended Plan is consistent with the NFMA requirement to "provide for diversity of plant and animal communities based on the suitability and capability of the specific land area to meet overall multiple-use objectives" (16 U.S.C. 1604(g)(3)(B)).

Compliance of the Selected Alternative with the 2012 Rule

For the reasons described above, based on my review of the Final EIS and project record, I have determined that the 2016 Forest Plan Amendment complies with all the applicable substantive requirements of the 2012 Planning Rule, 36 CFR 219.11 and 219.10(a)(2) and (a)(3), and is not opposed to any of the other substantive provisions of the 2012 Rule. In addition, the amended Forest Plan will meet the intent, if not the letter, of other substantive provisions of the 2012 Rule, such as the diversity provisions of 36 CFR 219.9. In particular:

- The Selected Alternative would improve ecological sustainability and would contribute to social and economic sustainability, consistent with the purpose for developing, revising and amending land management plans described in CFR 219.1(c).
- The changes to the timber program included in the Selected Alternative comply with the requirements in 36 CFR 219.11 by identifying lands within the plan area as not suited for timber production, including plan components to guide timber production, setting forth the maximum size of any created opening for commercial timber harvest in the beach fringe and

RMAs, and by limiting the quantity of timber that may be harvested by setting forth the Sustained Yield Limit. To ensure the transition to predominantly young-growth harvest does not adversely affect wildlife, the Selected Alternative includes S&Gs to improve wildlife habitat conditions and long-term ecological function in young-growth stands (36 CFR 219.11(d)).

- The changes associated with facilitating access to renewable energy included in the Selected Alternative comply with the requirements in 219.10(a)(2) and (a)(3), to consider renewable energy resources and the appropriate placement of infrastructure in providing for multiple use objectives.
- The Selected Alternative does not alter the coarse-filter/fine filter approach of the underlying plan to maintain ecological integrity and provide ecological conditions for at-risk species, and maintains the integrity of the Conservation Strategy. The Selected Alternative will retain the ability of the Conservation Strategy to maintain a functional and interconnected old-growth ecosystem across the planning area and the overall functioning of the Conservation Strategy in terms of its ability to maintain viable, well-distributed populations of wildlife across the planning area will not be affected.
- The overall findings for all sensitive species was that the Forest Plan, as amended, may affect individuals but is not likely to result in a trend toward Federal listing or loss of viability of the species.
- By shifting away from old-growth harvest, the Tongass will preserve undeveloped land, contributing to un-fragmented wildlife habitats. Young-growth timber harvest will occur within the previously harvested footprint and maximizes the use of existing roads to access young-growth stands.
- The amended Plan will be consistent with the NFMA requirement to “provide for diversity of plant and animal communities based on the suitability and capability of the specific land area to meet overall multiple-use objectives” (16 U.S.C. 1604(g)(3)(B)).

I am aware that since the draft ROD was released the Department of Agriculture has issued a notice of proposed rulemaking to amend the 2012 Planning Rule (81 Fed. Reg. 70373, Oct. 12, 2016). The proposed rule would amend certain procedures in the 2012 Rule for an amendment to an existing land management plan that was developed under a previous planning rule. However, the proposed rulemaking has not been finalized at the time of this decision and this amended Plan is consistent with the existing 2012 Planning Rule.

Therefore, no additional changes are needed to the amended Forest Plan to implement any other substantive provisions of the 2012 Planning Rule (36 CFR 219.8 through 219.11).

Market Demand

Estimating long-term market demand is inherently uncertain and there are differences of opinion regarding long-term market demand forecasts. This section provides background to Section 101 of the TTRA and summarizes market demand studies supporting the Tongass timber program and planning efforts, including the analysis addressing the Projected Timber Sale Quantity (PTSQ) and related plan components in this Amendment.

Background – Tongass Timber Reform Act

The debate concerning market demand for timber from the Tongass National Forest, and how the timber program relates to market demand, has been ongoing for decades. Forest Service economists with the Pacific Northwest Research Station completed their first study of the issue in 1990. Later that year, Congress enacted TTRA, which in Section 101 amended Section 705(a) of the Alaska National Interest Lands Conservation Act (ANILCA), and provides as follows:

> *Subject to appropriations, other applicable law, and the requirements of the National Forest Management Act of 1976 (Public Law 94-558), except as provided in subsection (d) of this section, the Secretary shall, to the extent consistent with providing for the multiple use and sustained yield of all renewable forest resources, seek to provide a supply of timber from the Tongass National Forest which (1) meets the annual market demand for timber from such forest and (2) meets the market demand from such forest for each planning cycle. (*16 U.S.C. 539(d)(a))

Questions about how to interpret and apply this direction slowed the development of procedures to comply with it. In the 1997 Forest Plan ROD, the regional forester directed that procedures be developed "to ensure that annual timber sale offerings are consistent with market demand." Those procedures were completed in 2000, and have become known as the "Morse methodology" after the author, Kathleen Morse. These procedures are based on the following premises:

- Forest product markets are volatile, especially in the short term.
- Southeast Alaska timber purchasers have few alternative timber suppliers if they cannot obtain it from the Tongass National Forest. Oversupplying this market has relatively few adverse economic effects; undersupplying it can have much greater negative economic consequences.
- It takes years to prepare national forest timber for sale, including completion of environmental impact statements.
- It is difficult to estimate demand for Tongass timber, even a year or two in advance.
- Industry must be able to respond to rapidly changing market conditions in order to remain competitive.

Accordingly, the Morse methodology establishes a system that seeks to build and maintain sufficient volume of timber under contract[9] to allow the industry to react promptly to market fluctuations. Industry actions such as annual harvest levels are monitored and timber program targets are developed by estimating the amount of timber needed to replace volume harvested from year to year. The Morse methodology is adaptive, because if harvest levels drop below expectations and other factors remain constant, future timber sale offerings would also be reduced to levels needed to maintain the target level of volume under contract. Conversely, if harvest levels rise unexpectedly, future timber sale targets would also increase sufficiently to ensure that the inventory of volume under contract is not exhausted.

By dealing with uncertainty in a flexible, science-based fashion, the Morse methodology is an example of adaptive management. The Forest Service adopted the Morse methodology as the means by which the agency complies year-by-year with the annual demand portion of the TTRA "seek to meet" requirement. Similarly, the agency intended to comply with the requirement to seek to meet demand "for each planning cycle" through a series of annual applications of the Morse methodology.[10]

Pacific Northwest Research Station's Role in Projecting Timber Demand

During the past 25 years, the Forest Service's Pacific Northwest Research Station (PNW) has published several studies in support of Tongass National Forest land management planning that

[9] Volume under contract is timber purchased but not yet harvested, the primary indicator of timber inventory available to the industry.

[10] Adoption of the Forest Plan Amendment does not require any changes in the Morse methodology for estimating annual timber sale offer levels. The Morse methodology will be updated, however, to incorporate new derived demand projections from the Daniels et al. study.

estimate derived demand for Southeast Alaska timber including Brooks and Haynes (1990, 1994, 1997), Brackley et al. (2006a), and Daniels et al. (2016).[11] Procedures developed by Morse (2000) to estimate timber offer target (supply) incorporate demand estimates from PNW studies as one of several inputs in the annual calculation. PNW derived demand projections are trend projections. The Morse methodology relates these derived demand projections into an annual calculation of timber sale offer levels.

Procedures developed by Morse (2000) to estimate annual timber sale offering targets from the Tongass National Forest address the uncertainty associated with forecasting market conditions, considering the continuing transformation of the timber industry and the inability of the Forest Service to respond quickly to market fluctuations due to the time it takes to prepare timber for sale. The basic approach is to allow the industry to accumulate an adequate volume under contract (i.e., a measure of inventory), then monitor industry behavior and adjust timber program levels to keep pace with harvest activity. Key economic indicators and stumpage market conditions are also monitored. Of noteworthy importance, the Morse methodology underwent rigorous technical and public review before it was implemented. Since the method was initially developed by Morse (2000), inputs to the model have been adjusted to reflect new understandings and information including share of raw material provided by the Tongass National Forest to local processors, amount of time between timber sale purchase and harvest, and sawmill capacity. In this way, the approach has allowed for adaptations to better reflect current conditions.

An update of the timber demand assessment by Brackley et al. (2006a) was requested from PNW to inform this Plan Amendment effort. New timber demand projections were also needed to accommodate changes in forest policy regarding Tongass timber harvest, land ownership, shipping policy, and profile of foreign log demand. The Research Station published new demand projections (Daniels et al. 2016), in support of this Forest Plan Amendment effort, identifying a baseline deterministic model and three alternative future scenarios representing the transition to young growth, growing wood energy markets, and rebound in domestic housing market. Of noteworthy importance, new PNW timber demand projections do not require changes to the basic methodology for timber offer calculations in the procedure outlined by Morse (2000).

Background of Timber Demand Studies – Market Conditions and Trends

During the 1990s, competition with production in other regions and market conditions led to the closure of Southeast Alaska's two pulp mills and numerous sawmill closures. From 2002 to 2006, the Tongass National Forest supplied approximately 65 percent of wood sawn by local sawmills (Kilborn et al. 2004; Brackley et al. 2006b; sawmill survey data on file with Forest Service Alaska Region). This percentage has increased in recent years with the Tongass National Forest providing an estimated three-quarters of wood sawn by local sawmills in 2013; nearly one-quarter of sawn wood originated from State of Alaska lands. State lands comprise a small percentage of Southeast Alaska forest lands and cannot indefinitely supply such a high proportion of timber needed by remaining sawmills. A very small proportion (less than one percent) of sawn timber has come from private lands in recent years. On average, the ten remaining local sawmills included in the Forest Service's annual sawmill survey operated at approximately 15 percent of their estimated capacity in 2013.

The primary destination for Southeast Alaska sawn wood is other U.S. states. Brackley and Haynes (2008) concluded many of the lumber and wood product markets Alaska sawmills compete in are higher-end markets in which foreign and domestic prices have become fairly similar, through market arbitrage. Haynes at al. (2007) found that since 1994, the value of U.S. forest product exports has been in gradual decline while the value of imports has steadily increased. Hansen (2006) further states U.S. companies have historically moved into the export market when the domestic market is down – and shifted back to the US market when the

[11] Please see the *References* section in Chapter 6 of the Final EIS for references cited in this ROD.

domestic market improves. Haynes et al. (2007) state U.S. demand for forest products is varied and large, averaging 71 cubic feet per person per year. Furthermore, domestic per capita consumption of wood products has been relatively constant for 50 years. Since the national recession (2007 – 2009) and prolonged period of economic recovery, the U.S. market has been slowly rebounding with housing starts and forest product prices again on the rise. Global population growth will also drive increases in wood products demand both domestically and internationally.

In 2007, the Forest Service Alaska Region approved a new policy under which timber purchasers may ship to Lower 48 states unprocessed certain small-diameter and low-quality logs harvested from the Tongass National Forest, up to 50 percent of the volume harvested on each sale. This interstate shipment policy places purchasers of Tongass National Forest timber in a similar position as their Lower 48 counterparts, where there is no restriction on interstate shipments of timber harvested from National Forest System lands. Implementation of this policy has made Alaska forest products producers more competitive with their counterparts in Lower 48 states. In response to depressed market conditions, the policy was expanded in 2008 to allow shipment to the most advantageous markets, specifically including foreign markets. Of noteworthy importance, the emergence of the Tongass National Forest as an international supplier of softwood logs is a major development since the prior demand study (Brackley et al. 2006a) that Daniels et al. (2016) incorporated into new timber demand projections.

On the supply side, the cost of preparing stumpage for sale and delivering it to sawmills has increased due to decreased size of timber sales, increased fuel costs, legal and procedural challenges to Federal timber sales, and more constraints on harvest activity in the interest of resource protection. The uncertainty surrounding Tongass National Forest sale quantities has increased the risk faced by potential purchasers and investors in local processing capacity.

Use of Timber Demand Studies

As mentioned above, PNW's most recent timber demand projections (Daniels et al., 2016) includes a baseline model utilizing historical datasets and develops three different scenarios displaying alternative futures for Southeast Alaska. In the baseline model, 46 MMBF represents the annual average timber demand for Tongass timber over the next 15 years – with a range of 41 MMBF to 52 MMBF during the same time period. As the Forest Plan Amendment interdisciplinary team began the amendment process and focused on timber market demand, 46 MMBF was used to inform timber objectives used during the planning process.

The Daniels et al. study of long-term timber demand projections is based on economic theory, peer-reviewed methodology, and scientific and objective analyses conducted by timber economists and forest researchers (2016). Daniels et al. avoids recommending any one scenario as a "most likely" projection because of the relatively high degree of uncertainty surrounding developments in Southeast Alaska. The baseline model, however, utilizes historical datasets necessary to represent Southeast Alaska timber markets and assumes the timber industry in Southeast Alaska will remain at post-2008 recession levels for the next 15 years. Therefore, I consider the baseline annual average of 46 MMBF timber demand from the Tongass a conservative and rational estimate. Of noteworthy importance, the 46 MMBF projection is not only represented in the baseline model, but it is also represented in all three scenarios at different points in time, and these scenarios represent alternative futures for timber harvest in Southeast Alaska.

Plan Components and Projected Timber Sale Quantity

In past forest plan revisions and amendments, varying demand scenarios were used to develop alternatives, including scenarios that allowed for growth and expansion of the current industry. This Forest Plan Amendment is premised on achieving certain objectives, as expressed in greater detail in the *Introduction* section of this Record of Decision, and as analyzed in the Final EIS. Among other things, the Forest Plan must function in a manner that transitions to primarily young-growth harvest within 10 to 15 years, maintains a viable timber industry, operates within an

identified suitable land base that maintains the Forest Plan's Conservation Strategy yet produces an appropriate volume of timber, and seeks to meet market demand, consistent with TTRA. These conditions are reflected in the *Purpose and Need* section of the Final EIS.

For the Forest Plan to achieve all these objectives, the amendment and Final EIS integrated certain rational, quantitatively formulated conditions, including the projected demand of an average of 46 MMBF of Tongass timber annually. As described above, the baseline model utilizes historical datasets necessary to represent Southeast Alaska timber markets; it assumes the timber industry in Southeast Alaska will remain at post-2008 recession levels for the next 15 years, a conservative assumption. After thorough review of this study, I consider the likelihood that baseline demand will drop below post-recession levels as very low. If demand drops below expectations, future timber sale offerings would also be reduced to levels needed to maintain the level of volume under contract, consistent with the Morse methodology described above.

The 2012 Planning Rule provides that where, as in this Plan Amendment, lands are identified as suitable for timber production, plan components guiding harvest for timber production are included in the plan and may be designed to apply to all purposes or to singular purposes (36 CFR 219.11(b); see also FSH 1909.12-2015-1, Ch. 60, Sec. 62). To maintain a viable timber industry, this Amendment includes plan components to provide for a sufficient amount of old-growth "bridge timber" to allow industry to re-tool for processing young growth. Plan components constituting timber objectives (O-TIM-01, O-TIM-02) were added to the plan to accelerate the transition to primarily young-growth harvest while ensuring sufficient old growth is available during the transition to supply a transitioning industry. Daniels et al.'s baseline model and range of potential demand scenarios informed the construction of these plan components, resulting in the integration of the projected 46 MMBF average annual demand for Tongass timber to ensure that the goal of the transition within 10 to 15 years is achievable.

The timber objectives were designed to provide a measurable rate of progress toward the acceleration of the transition to primarily young-growth harvest while providing sufficient old-growth timber to meet market demand and allow industry to re-tool for processing young growth. The PTSQ for all five alternatives evaluated in the Final EIS meets demand projections during the period of transition.

The PTSQ consists of old-growth and young-growth harvest, with old-growth decreasing as a share of this total volume (46 MMBF) over time as more young growth becomes economic to harvest. Old-growth volume offered continues to decrease until it reaches 5 MMBF per year, at which point it is stabilized at 5 MMBF per year to support a small sale and micro sale industry, and remains at that level for the remainder of the planning period. Once this point is reached, the PTSQ would increase above 46 MMBF as more young growth becomes economic to harvest. The speed of the transition (i.e., how many years it takes for the young-growth timber supply to reach 41 MMBF) and the amount of young-growth timber available following the transition varies by alternative.

While past forest plan revisions and amendments used varying demand scenarios to develop the alternatives analyzed, including scenarios that allowed for growth and expansion of the current industry, an examination of alternatives at levels above projected demand is not warranted for this amendment because it would require expansion of old-growth harvest, at least during the next 10 to 20 years. However, over the longer term, expansion of the timber industry is an option as more and more young growth becomes economic to harvest. Similarly, consideration of alternatives that are premised on transitioning more rapidly that did not meet the projected minimum average annual planning cycle demand volume over the next 15 years also is not warranted because it does not meet the Forest Plan Amendment's purpose and need.

Conclusion

While estimating long-term market demand is inherently uncertain and there are differences of opinion regarding long-term forecasts of market demand, I find that for forest planning purposes, utilizing 46 MMBF as the PTSQ is reasonable, conservative, and based on an evaluation of the best available information. Furthermore, while 46 MMBF is the annual average of demand for

Tongass timber in the baseline model, it is also reflected in all three future scenarios at different points in time. Nonetheless, I acknowledge the continued high interest in all issues related to market demand for timber from the Tongass, and the need to validate our assumptions as the Forest implements the amended Plan. Accordingly, the Tongass will monitor actual timber harvest levels, compare them to the projections in the 2016 PNW demand study, and make any needed changes in the annual Tongass offer levels via the established Morse methodology. Specifically, I have added a Forest-wide Management Approach for Timber in Chapter 5 of the amended Plan. This management approach is to:

- Monitor harvest over the next five years, beginning at the effective date of the 2016 Amended Plan, and consider any constraints (such as litigation) on that harvest.
- Monitor data related to the assumptions relied on in the 2016 Daniels, et al. report.
- Report on any different or unexpected information identified through monitoring than that considered in the analysis for the Plan Amendment EIS, and consider whether any differences are significant enough to warrant further review in another plan amendment.
- Identify the timeframe for this report, and provide the opportunity for public and agency review of the information.

For all these reasons, I believe that the PTSQ of 46 MMBF will accelerate the transition to predominantly young-growth harvest over the next 10 to 15 years. If market conditions change or the amended Forest Plan, containing components utilizing this PTSQ, inhibits timber supply, another amendment may be necessary to address these unanticipated circumstances. The PTSQ is neither a goal nor a target. It is also not a ceiling – it is an estimate. It is the annualized average amount of timber expected to be sold over a ten-year period in order to seek to meet current planning-cycle demand projections and meet the Purpose and Need. Thus, if less than the average annual figure of 46 MMBF is sold in the next five years, the difference could be added to the sale quantity for the remainder of the decade. While it is most often expressed as an average annual figure, as it is here, the PTSQ is the estimate of the quantity of timber expected to be sold during the plan period. Although NFMA provides that the plan period is at least every 15 years, it limits the sale of timber to less the sustained yield limit for each decade of the plan (16 U.S.C. 1611). Providing estimates in the plan of the annual PTSQ for each of the first two decades aligns with the NFMA decadal periods limiting the sale of timber, and provides estimates to cover a second decade if revision of the plan is delayed beyond the 15-year limit. Accordingly, the average annual planning cycle demand was multiplied by ten to establish the PTSQ of the amended Forest Plan at 460 MMBF for the next decade.

Timber Export Policy

The Forest Service allows limited exports of unprocessed timber from National Forests in Alaska under general authority of the Organic Administration Act (16 U.S.C. §§ 473-482, 551 (2000))), NFMA (16 U.S.C. §§ 1600, 1611-1614 (2000)) and 36 CFR 223.201. Reviewers have raised concerns that the 2007 Limited Export Policy reduces employment in the timber processing industry in Southeast Alaska. These issues are analyzed in detail in Appendix H of the Final EIS.

One of the primary goals of the Tongass National Forest timber program is to contribute to the local and regional economies of Southeast Alaska. In keeping with this long-standing goal, current law allows timber harvested from Federal lands in Alaska to be shipped out of Alaska only if “the supply of timber for local use will not be endangered” (16 U.S.C. §616).[12] These goals remain on the Tongass today, and will be especially important as the Tongass National Forest accelerates the transition to young-growth harvest.

[12] Further detail on implementing this requirement is provided by regulations found at 36 CFR 223.201.

The authorization for limited interstate shipments of unprocessed Sitka Spruce and Hemlock logs may increase the amount of harvest on the Tongass above the amount that could occur without it. This is the case because with the positive appraisal requirement, many sales could not be offered if not appraised for export. However, TTRA requires the Secretary of Agriculture to seek to meet the market demand for Tongass timber, both annually and over the planning cycle, to the extent consistent with providing for the multiple use and sustained yield of all renewable forest resources. The Limited Export Policy provides flexibility for the Region to balance the economics of timber sales to meet both of those statutory requirements. This does not increase the amount of timber harvested beyond that analyzed and disclosed pursuant to NEPA, NFMA, and the Administrative Procedure Act. The policy itself has no environmental effects—implementation of the policy involves further Forest Service action, which is subject to NEPA analysis, including public notice and opportunity for comment.

The Limited Export Policy is even more vital to sustain the local industry during the transition to young-growth timber by allowing timber purchasers to export lower value logs while establishing a market for young-growth sawn products. In the early years of the transition it may be the case that there is a very limited local market for young-growth logs. In order to keep local operators in business, young-growth timber sale purchasers will have the option to export those logs which cannot be locally utilized, consistent with the Limited Export Policy. Export allowances beyond that programmatically approved under the current policy will continue to be considered on a case-by-case basis, even up to 100 percent export where it would further the goals and objectives of the Forest Plan and is consistent with statutory requirements.

Recreation and Tourism

The potential effects of the proposed Forest Plan alternatives on recreation and tourism are evaluated in the *Recreation and Tourism* section of the Final EIS. As stated in that section, recreation and tourism in Southeast Alaska and on the Tongass are influenced by a number of factors that are largely independent of forest management decisions. Cruise ship passengers, non-resident independent visitors, and Southeast Alaska residents all place a high value on the quality and availability of outdoor recreation opportunities on the Tongass. Although there is limited information that quantifies resident and non-resident recreation use, I know that residents and visitors alike seek a wide spectrum of recreation activities – some people enjoy activities requiring vast and remote areas in a natural setting, while others prefer developed facilities, utilities, and easy access. From a management perspective, the requirements of these activities are often at odds with one another and sometimes with other Forest management activities, including timber harvest and associated road construction and road management.

The potential effects on the supply of recreation opportunity settings are affected by land management decisions to the extent that different LUD classifications influence potential recreation opportunity spectrum (ROS) classes and, therefore, different types of recreation. As indicated in the Final EIS, the general trend across all alternatives is toward a slight increase in developed and/or motorized opportunities and a corresponding small decrease in primitive recreation opportunities. Under the Selected Alternative, approximately 87 percent of the Forest will fall within the Primitive or Semi-Primitive ROS classes, compared with approximately 88 percent at present. Approximately 11 percent of the Forest will fall within the Roaded Modified ROS class, compared to 10 percent at present. These changes will occur gradually over the next 100 years, and will be lower in magnitude if future development does not occur at the levels projected in the Final EIS.

It is important to note that recreational opportunities do not cease to exist as a result of management activities such as timber harvest and road construction. Rather, changes in the supply of recreation opportunities could result in changes in recreation demand and use patterns. Southeast Alaska residents and visitors seeking solitude and isolation in a natural setting may be displaced to other areas of the Forest where the setting and use patterns are more in line with their expectations. This effect is a result not only of projected timber harvest and road development, but also due to the increases in resident population and tourism that are expected

to occur under all of the alternatives. The vast majority of the Forest will remain untouched by development activities, even after 100 years.

Those seeking more developed areas and easier access may find additional recreational opportunities as forest management activities in development LUDs increase road access and facilitate more developed recreation opportunities. Forest-wide standards and guidelines for recreation and tourism remain substantially unchanged under the amended Forest Plan, and will guide the development of new recreation facilities. The amended Forest Plan also protects the scenic quality of heavily traveled cruise ship corridors and recreation and tourism use areas.

In summary, my decision provides for a mix of recreation opportunities, with a wide range of recreation settings and experiences available throughout the Forest. It meets the various and wide-ranging recreation demands and user needs of Southeast Alaska residents and visitors and the recreation and tourism industry.

Other Considerations

Public Participation

As explained in Chapter 1 of the Final EIS, the 2016 Tongass Forest Plan Amendment is based on public input gathered over several years through a variety of means, including project-level NEPA analyses, the 5-Year Review completed in 2013, the development of the TAC as described in the following section of this ROD, as well as the public input gathered specifically for this Plan Amendment. Public involvement in this Plan Amendment process began with the publication in the *Federal Register* on May 27, 2014 of the Notice of Intent to prepare an environmental impact statement, which began a 30-day public comment period. Approximately 124,000 letters were received. Appendix A of the Final EIS summarizes the public input process that led to the development of the significant issues.

The Draft EIS was released for public comment on November 12, 2015. Nine public open house meetings were held in nine communities throughout Southeast Alaska. Each of these meetings was followed by a subsistence hearing as well. Over 165,000 comments were received during the 90-day public comment period. All comments were carefully reviewed and consolidated into logical comment summaries. Responses were developed to each comment summary; these responses can be found in Appendix I of the Final EIS.

Tribal governments and Alaska Native corporations were also consulted throughout the planning process. They participated in the subsistence hearings mentioned above and their comments are included in the summaries and responses contained in Appendix I of the Final EIS.

Recommendations of the Tongass Advisory Committee

The Tongass Advisory Committee (TAC) was chartered by the Secretary of Agriculture in February 2014, under the authority of the Federal Advisory Committee Act, to provide advice and recommendations for developing an ecologically, socially, and economically sustainable forest management strategy on the Tongass National Forest. The recommendations and advice informed the amending of the Forest Plan.

The TAC comprised 15 members providing a balanced and broad representation of the following interests: Federally Recognized Tribes; Alaska Native organizations and/or Alaska Native Corporations; national or regional environmental and conservation organizations; timber industry; Federal, State and local governments; and other commerical users or the public at large. The TAC members were selected because demonstrated a commitment to working collaboratively and finding solutions that meet multiple stakeholder values.

The TAC held nine meetings between August 2014 and December 2015. Early in the process, they all agreed on a common vision: “Southeast Alaska is comprised of prosperous, resilient communities that have the opportunity to predictably use and benefit from the diversity of forest

resources to achieve the cultural, social, economic, and ecological health of the region for current and future generations."

With that vision in mind, and considering, among other things, the availability of young growth and substantial public interest, the TAC reached consensus on a comprehensive package of recommendations, including advice specific to the amendment of the Plan. The TAC's draft recommendations, Appendix B to the proposed Forest Plan, were the basis for Alternative 5, which is the alternative I have selected in this decision. The TAC's final recommendations, issued in December 2015, are found in Appendix B to the proposed Forest Plan. While this ROD does not describe each the TAC's final recommendations in detail, I have considered the entirety of those recommendations in making my decision.

The TAC recognized opportunities exist to accelerate the transition to young growth, reduce the commensurate harvest of old growth, and maintain a more reliable timber supply in Southeast Alaska through the transition period; it acknowledged that the most effective way to meet these goals is to bring forward and provide advanced age young growth through some time-limited relaxations in the Plan's standards and guidelines. Additionally, the TAC identified a "co-intent mandate" for the Forest Plan Amendment, which improves habitat conditions and long–term ecological function in young-growth stands while producing timber volume from those areas. The TAC stated this would "enable the Forest to move out of old growth as quickly as possible and accelerate the transition while sustaining an economically viable timber industry." These recommendations are reflected in the young-growth direction of the amended Plan.

The TAC also recommended that cultural and operational changes in how the Tongass National Forest conducts its business are critical to the success of the transition, stating "openness, transparency, and collaboration both within the Forest and with external parties will be essential." Additionally, the TAC recommended active monitoring and adaptive management, including convening a Forest-wide collaborative group as a mechanism by which stakeholders and the Forest are accountable to the goals of transition. These recommendations are more related to the implementation of the amended Plan rather than plan content developed through the amendment process. I support further collaboration efforts, monitoring of implementation, greater openness and transparency, and accountability for achieving the goals of transition, and will continue to work with stakeholders to further the TAC's recommendations related to implementation.

In addition, the TAC recommended that the Forest Service should "complete a thorough analysis of young-growth inventory at the stand level in the first three years of the transition to more accurately predict the young-growth timing and supply to complete the transition." An investment in stand-level work to: "1) ground-proof and refine inventory and growth data; 2) improve inventory accuracy; and 3) increase reliability of forecast projections for future resource management and investment activities" was recommended.

In response to the TAC's recommendations, the State of Alaska and USDA State and Private Forestry entered into a Challenge Cost Share Agreement that addresses the inventory of young growth. The Forest Service invested $2.5 million into the Agreement to complete a timber inventory on 70,000 acres of combined young growth and old-growth bridge timber. The inventory will be conducted during the 2016 and 2017 field seasons and data collection work is underway. The young-growth inventory is a stand-level, field intensive effort that will sample 35,000 acres of older young-growth stands (more than 55 years old), 15,000 acres of younger young growth (from 40 to 55 years old), and an additional 20,000 acres of old-growth bridge timber. The inventory is expected to be completed by the end of the next field season (2017), assuming favorable weather conditions and availability of field crews. The information gained from the inventory, in combination with existing information on Tongass young-growth stands, will provide a rich data set from which sound estimates can be developed for use with young-growth project planning as transition implementation occurs.

Although I recognize that some members of public have indicated a decision on this Plan Amendment should not be made until a comprehensive inventory of young growth on the Tongass is completed, I find that postponing this decision to await comprehensive stand-level

inventory work is not necessary. Currently available information regarding young growth is of sufficient scope and depth to support the development of the Forest Plan Amendment. Further delay of the decision will also delay implementation of key provisions of the Plan that enhance support for renewable energy project development and the transition to young-growth harvest.

Best Available Scientific Information

This narrowly focused Tongass Forest Plan Amendment builds upon the work previously done to revise and amend the Forest Plan, as described by Regional Forester Dennis Bschor on pages 53 and 54 of his Record of Decision for the 2008 Tongass Forest Plan Amendment. For this amendment, the interdisciplinary team reviewed the information available concerning the issues analyzed in the EIS and determined what information was most accurate, reliable, and relevant to disclosing the effects of the alternatives. That information is cited in the Final EIS.

The IDT thoroughly updated the geographic information system (GIS) database constructed during the development of the 1997 Forest Plan. The IDT used the GIS database to evaluate complex spatial effects resulting from implementation of the alternatives, such as maintenance of connectivity corridors for wildlife and changes in visual condition over time. The IDT used an optimization model to estimate the long-term flow of timber from the planning area. This model is widely used by private and state land managers and is similar to the model used in the 2008 Forest Plan Amendment. The model is widely accepted as accurate way of modeling timber harvest schedules (Final EIS, Appendix B).

The Forest Service's Pacific Northwest Research Station prepared a new study of market demand for timber from the Tongass National Forest, as discussed in the section of this ROD on that topic. In addition, The IDT determined that scientific information from State agencies such as the Alaska Departments of Fish and Game (ADF&G) and Environmental Conservation, and Federal agencies such as the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service was best available scientific information because it was accurate, reliable, and relevant. The IDT used that information to inform the planning process to help identify issues, help develop alternatives, help identify the preferred alternative in the Draft EIS, and help choose the Selected Alternative.

Another example of the use of best available scientific information is when biologists from ADF&G and FWS used their professional judgement to help recommend modifications of the network of OGRs to compensate for the acreage of that network conveyed to the Sealaska Corporation as a part of the Sealaska Lands Bill, as described in the section of this ROD on the Tongass Old-growth Habitat Conservation Strategy.

I find that this information constitutes the best available scientific information (BASI) relevant to this Plan Amendment. BASI was used to help estimate environmental consequences, as evidenced by the extensive *References* section of the Final EIS (Chapter 6), and the multiple appendices that document methods of analysis or other technical information. All of these tools, taken together, demonstrate the use of the best available scientific information.

While the information used in developing the Plan Amendment is the best available, that does not mean it is perfect or complete. Indeed, the inherent nature of natural resource management is that we never know all there is to know about all the ecosystems we manage. As ecologist Frank Egler put it: "Ecosystems may not only be more complex than we think, they may be more complex than we *can* think." Yet management decisions must be made; it would be illusory to believe decisions can be postponed until complete and perfect information is obtained – the fact is that it will never be obtained. So the real question is whether the information available is adequate for making the decision I am making today.

Some reviewers of the Draft EIS believe the information is inadequate; some of these concerns were also expressed in the objections to the Draft ROD, amended Plan, and Final EIS. One such concern is that the Final EIS did not include all essential information related to watershed health and effects of logging, including data on stream miles, channel type, stream class, and watershed condition; therefore the analysis was misleading. I acknowledge, as does the Final EIS, that the

Tongass National Forest stream dataset is incomplete, especially regarding Class IV streams (which includes small and ephemeral streams). If projects such as timber sales were carried out without more complete information, the risk of adverse effects on watershed conditions and fisheries resources would be increased. But it is neither practical nor necessary to postpone this programmatic decision on the Forest Plan Amendment until information required to complete this dataset can be gathered. It is impractical because it would impose exorbitant costs -- several years and several million dollars -- to gather such data on every acre within the development LUDs under the amended Plan. It is unnecessary because the analysis in the Final EIS is sufficient to compare the alternatives considered and rank them in terms of risk to watershed and fisheries resources; adding the information requested would not change the rank order of the alternatives, and is therefore not essential to make a reasoned choice among the alternatives. Finally, as described in the Final EIS, much more site-specific information, including the types cited above, is obtained during project-level analysis for activities such as timber sales and road construction, where it can be obtained more efficiently once the location of such projects is identified.

Other public comments and objections focused on the lack of a complete inventory of young-growth forest stands across the Tongass. As described in the Final EIS, the Tongass is working with the State and Private Forestry branch of the Forest Service and the State of Alaska under a Challenge Cost Share Agreement to gather more complete stand-level inventory information to facilitate site-specific analysis of proposed young-growth timber harvest projects. While I continue to believe that the existing information is adequate for the programmatic decision I am making today, I will ensure that the report produced by this effort will be shared with timber industry stakeholders and the public for review.

For all these reasons, based on my review of the EIS and the planning record, I have determined that the most accurate and reliable scientific information available that is relevant to the issues considered in this narrowly focused Tongass Forest Plan Amendment has been used to inform the planning process and applied to the issues considered in the Amendment, as required by 36 CFR 219.3.

Station Director Concurrence

Consistent with 36 CFR 219.2(b)(4), the Acting Director of the Forest Service's Pacific Northwest Research Station has advised the Tongass National Forest by letter dated November 7, 2016, that he concurs with the amended Tongass Forest Plan that is applicable to the Héen Latinee and Maybeso Experimental Forests, subject to language that has been included in the amended Plan clarifying that nothing in the applicable plan direction changes the requirement for consultation with the Station Director regarding any proposed activities that may affect ongoing research within the Experimental Forests. The applicable plan direction includes renewable energy (except S-RE-LAND-01 and S-RE-TRAN-01), transportation system corridors (except S-TSC-LAND-02), and forest-wide plan components that are displayed in Chapter 5 of the amended Plan. The applicable forest-wide plan components are displayed in a table in the beginning of the management prescription for the Experimental Forest LUD in Chapter 3 of the amended Forest Plan. The new language added at the request of the Station Director – management approaches for renewable energy and transportation systems corridors -- also suggests that such consultation take place as early in the planning process as feasible.

Potential Land Adjustments

Chapter 3 of the Final EIS discusses several potential land conveyances and land exchanges that would involve NFS lands on the Tongass. Some of these ideas have been proposed in one form or another for many years without significant progress toward completion, so it would be speculative for me to discuss here how the Forest Service might respond to them, especially with regard to any changes to the Forest Plan that might be needed. Other proposals involve relatively small amounts of land that would have negligible effect on management or resources of the Tongass. Perhaps the most significant of these proposals is to exchange land with the

Alaska Mental Health Trust. This proposal is embodied in S.3006, the Alaska Mental Health Trust Land Exchange Act of 2016, introduced by Senator Murkowski (R-AK) on May 26, 2016. No action has been taken to date on this proposed legislation. As noted in the Final EIS, this potential land exchange is in the early stages of a multi-year planning process. Any potential effects on the resources and management of the Tongass will be evaluated during that process, including a determination whether it would warrant making changes to the Tongass Forest Plan. Any changes would be made through existing planning and environmental analysis procedures, including public involvement.

National Policy Considerations

The amended Forest Plan reflects several aspects of national policy. First and foremost is the Secretary of Agriculture's Memorandum 1044-009, *Addressing Sustainable Forestry in Southeast Alaska,* issued July 2, 2013, in which Secretary Vilsack stated that "This Memorandum affirms that this transition to a more ecologically, socially, and economically sustainable management is a high priority for USDA, the Forest Service, and the Tongass National Forest." As explained throughout this ROD, responding fully to the Secretary's memorandum has been a driving force for the Forest Plan Amendment throughout the entire planning process. The Selected Alternative is fully consistent with the Secretary's memorandum.

Another expression of national policy is the USDA Forest Service Strategic Plan: FY 2015-2020, developed under the Government Performance and Results Act of 1993. This Strategic Plan contains the following strategic goals and objectives:

- Sustain our Nation's Forests and Grasslands
  - Objective A. Foster resilient, adaptive ecosystems to mitigate climate change.
  - Objective B. Mitigate wildfire risk.
  - Objective C. Conserve open space.
- Deliver Benefits to the Public
  - Objective D. Provide abundant clean water.
  - Objective E. Strengthen communities.
  - Objective F. Connect people to the outdoors.
- Apply Knowledge Globally
  - Objective G. Advance knowledge.
  - Objective H. Transfer technology and applications.
  - Objective I. Exchange natural resource expertise.

The 2016 Forest Plan Amendment is consistent with several of these goals and objectives, and does not inhibit or conflict with any them.

Means to Avoid Environmental Harm

Mitigation Measures Adopted

Extensive measures to avoid or minimize environmental harm were included in the 2008 amended Forest Plan. These measures include forest-wide standards and guidelines, and additional standards and guidelines for each LUD. As explained in previous sections of this document, the amendment includes measures to mitigate adverse effects of harvesting young-

growth timber and protect a variety of natural resources while encouraging renewable energy production. At a minimum, this management direction meets all requirements of applicable laws, regulations, and State standards. Mitigation measures are an integral part of the standards and guidelines in Chapters 3 and 4 of the 2016 Forest Plan Amendment, and of the new plan components in Chapter 5 of the Plan. Singularly and collectively, they avoid, rectify, reduce, or eliminate potential adverse environmental impacts of forest management activities. Some more significant mitigation measures are the beach fringe and riparian buffer zones, and the network of old-growth reserves. Based on the analysis in the Final EIS, including the response to comments contained in Appendix I, I conclude that all practicable means to avoid or minimize environmental harm from the amended Forest Plan have been adopted.

Mitigation Measures Not Adopted

As discussed in the section of this ROD dealing with alternatives considered but not analyzed in detail, several individuals and organizations who provided comments on the Draft EIS recommended that the Forest Plan be modified to complete the transition to young-growth management in 5 years rather than 10-15 years as specified in the Secretary's 2013 Memorandum. Many of these reviewers based this recommendation on a desire to reduce adverse environmental effects of harvesting old-growth timber. This change was not adopted because the evidence available to the Forest Service, as displayed in the Final EIS, indicates there would be insufficient young-growth timber that is economical to harvest to maintain a viable timber industry through the transition. Thus, this measure would be inconsistent with the purpose and need for the amendment as expressed in the Secretary's Memorandum, which includes maintaining a viable timber industry.

The Department of the Interior recommended that young-growth harvest units in the beach and estuary fringe be restricted to no more than 2 acres to maintain or improve wildlife habitat conditions. This measure was not adopted because every young-growth harvest in these areas must meet the desired conditions specified in Chapter 5 of the amended Forest Plan for Beach and Estuary Fringe (DC-YG-BEACH-01), which include providing habitat and connectivity and accelerating the development of old-growth characteristics. Limiting young-growth harvest units to 2 acres or less is not necessary to achieve these desired conditions. Moreover, the amended Forest Plan's standards for Beach and Estuary Fringe (S-YG-BEACH-01) limits young-growth harvest units to no more than 10 acres with removal of no more than 35 percent of the acreage of the original harvest unit; commercial thinning may remove no more than 33 percent of the basal area of the timber stand. These limits were recommended by the TAC, due to the very local nature of effects, the beach and estuary fringe will continue to function as an ecological transition zone between the interior forest and marine environment.

Monitoring and Evaluation

In compliance with Section 219.12(c)(1) of the 2012 Planning Rule, the Tongass National Forest released for public comment a proposed Forest Plan monitoring program on March 9, 2016, as a replacement for Chapter 6 of the 2008 amended Forest Plan. After reviewing comments received and making a few changes, I approved the final Forest Plan monitoring program as an administrative change to the 2008 amended Forest Plan on May 9, 2016. The new monitoring program will assess the effectiveness of the Forest Plan's standards and guidelines contained in Chapters 3 and 4, and of the plan components developed under the 2012 Planning Rule contained in Chapter 5. Monitoring results will be used to evaluate the assumptions used in developing the Forest Plan, and may be the basis for amendments or revisions, just as the information from the monitoring conducted since 2008 helped form the basis for this Amendment. The Forest Plan may be amended at any time if changes to plan components are needed. Monitoring will also ensure that both forest-wide and LUD-specific management direction is being correctly applied.

Consistent with the TAC's final recommendations, the monitoring and evaluation program will include reviews conducted 5 and 10 years after the effective date of this ROD to evaluate the effectiveness of the amended Plan's management direction in achieving its objectives, including an assessment of whether any acres of young-growth forest should be removed from the suitable timber base. If so, the Forest will consider whether an equal number of young-growth acres should be added to the suitable timber base. Because suitability is a Plan component under the 2012 Planning Rule, any changes to the suitable timber base must be made by amending or revising the Forest Plan.

Adaptive Management

Adaptive management is a concept that recognizes the uncertainty inherent in making decisions such as I am making today. This concept includes measures to deal with those uncertainties, primarily by monitoring the effects of the decision during implementation of it, and adjusting future activities to reflect the additional knowledge gained through monitoring. We monitor conditions to detect changes in the plan area, to test the assumptions underlying management decisions, and to measure the effectiveness of management activity in achieving desired outcomes. This allows the Tongass to adapt its management to changing conditions or amend the Forest Plan if the assumptions made are inaccurate. Many parties supported the adoption of adaptive management during the objection resolution meeting held in Ketchikan and Juneau. Several aspects of the 2016 Forest Plan Amendment incorporate adaptive management, most of which are described elsewhere in this ROD. These include:

- The review of the effects of harvesting young-growth timber on T77 watersheds and Audubon/TNC conservation priority areas – and the potential adjustments that will be considered in response to the findings of the review (as described in the *Summary of Alternative 5* section of this ROD).
- The commitment to complete the ongoing work with State and Private Forestry and the State of Alaska to improve the inventory of young-growth timber stands and share the report with all interested parties (as described in the *Best Available Scientific Information* section of this ROD).
- The efforts to monitor actual timber harvest levels, compare them to the projections in the 2016 PNW demand study, and make any needed changes in the annual Tongass offer levels via the established Morse methodology (as described in the *Market Demand* section of this ROD).
- The commitment to review the effectiveness of the amended Plan's management direction in achieving its objectives after 5 and 10 years, including a consideration of maintaining the amount of young-growth forest in the suitable timber base as recommended by the TAC (as described in the *Monitoring and Evaluation* section of this ROD).

These are just a few parts of the amended Forest Plan that incorporate adaptive management and demonstrate the Forest's commitment to continually learning more about the natural resources of the Tongass and incorporate what we learn to improve our management of them.

Findings Related to Other Requirements

National Environmental Policy Act

NEPA requires that Federal agencies prepare detailed statements on proposed actions that significantly affect the quality of the human environment. NEPA's requirement is designed to serve two major functions:

- To provide decision-makers with a detailed accounting of the likely environmental effects of proposed actions prior to adoption.
- To inform the public of, and allow comment on, such efforts.

The Forest Service has developed, gathered, and reviewed an enormous amount of information regarding the potential effects of each of the alternatives considered in the Final EIS. This information expands and refines the data, analyses, and public input described in the NEPA documents associated with the 1997 Forest Plan; the draft, supplemental, and final EISs leading to the 1997 ROD; documents associated with the 2003 Supplemental EIS; the EIS for the 2008 Tongass Forest Plan Amendment; and the Draft and Final EIS for the 2016 Tongass Forest Plan Amendment. My decision also considers the vast array of public input, including public meetings, comments from the internet website, and comments received during the 90-day comment period for the Draft EIS.

All substantive comments, written and oral, made on the 2015 Draft EIS have been summarized and responded to in Appendix I of the Final EIS. During the course of this effort, this public involvement has led to changes in the analysis and the alternatives.

I find the environmental analysis and public involvement process the Final EIS is based on complies with each of the major elements of the requirements set forth by the CEQ regulations for implementing NEPA (40 CFR 1500-1508). My conclusion is supported by the following findings.

First, the Final EIS considered a broad range of reasonable alternatives. The five alternatives considered in detail in the Final EIS encompass a broad range of ways to accomplish the narrowly focused purpose and need for the 2016 Forest Plan Amendment.

Second, the Final EIS reflects consideration of cumulative effects of the alternatives by evaluating past, present, and reasonably foreseeable future actions in the planning area including Federal, State, Tribal and private lands. The environmental effects analysis estimates the potential effects of timber activities and timber-associated activities, such as road construction, for 100 years. The analysis of effects to wildlife was based on the assumption that these activities would take place at their maximum allowable levels each year for 100 years, an extremely conservative assumption. This analysis considers changes to vegetation both temporally and spatially. Moreover, although non-Federal lands are outside the scope of this decision, effects from their management have been thoroughly considered in the Final EIS.

Third, the Final EIS makes use of the best available scientific information that is relevant to the decision being made, as discussed in detail in the section of this ROD on that topic.

The decision here does not authorize timber sales or any other specific activity on the Tongass National Forest. Site-specific decisions will be made on projects in compliance with NEPA, the Endangered Species Act, and other environmental laws following applicable public involvement and appeal procedures.

National Forest Management Act

The National Forest Management Act and implementing regulations specify a number of requirements that guide Forest Service planning. The amended Forest Plan complies with each of these management requirements, as explained in this ROD and accompanying Final EIS and appendices. Certain requirements that received heightened public attention are discussed in further detail below and in other sections of this ROD.

Diversity of Plant and Animal Communities

NFMA required the Secretary of Agriculture to promulgate regulations to, among other things, “provide for diversity of plant and animal communities based on the suitability and capability of

the specific land area in order to meet overall multiple-use objectives….” 16 U.S.C. 1604(g)(3)(b). The 1982 Planning Rule, promulgated in compliance with this direction, required that:

Fish and wildlife habitat shall be managed to maintain viable populations of existing native and desired non-native vertebrate species in the planning area. For planning purposes, a viable population shall be regarded as one which has the estimated numbers and distribution of reproductive individuals to insure its continued existence is well distributed in the planning area. In order to insure that viable populations will be maintained, habitat must be provided to support, at least, a minimum number of reproductive individuals and that habitat must be well distributed so that those individuals can interact with others in the planning area (36 CFR 219.19 (2000)).

The 1982 planning regulations also required forest plans to:

- Provide for adequate fish and wildlife habitat to maintain viable populations of existing native vertebrate species and provide that habitat for species chosen under Sec. 219.19 is maintained and improved to the degree consistent with multiple-use objectives established in the plan (36 CFR 219.27 (2000)).

The 1997 Tongass Forest Plan was developed during the time the 1982 Planning Rule was in effect. The 2008 Tongass Plan Amendment was also developed and approved in accordance with the 1982 provisions, as permitted by the planning rule in effect at that time (36 CFR 219.35(b) (2010)). Accordingly, the Tongass Forest Plan to this day contains language reflecting these requirements, such as:

Maintain the abundance and distribution of habitats, especially old-growth forests, to sustain viable populations in the planning area (Forest Plan, p. 2-6).

Provide old-growth forest habitats, in combination with other LUDs, to maintain viable populations of native and desired non-native fish and wildlife species and subspecies that may be closely associated with old-growth habitats (Forest Plan, p.3-56).

Maintain contiguous blocks of old-growth forest habitat in a forest-wide system of old-growth reserves to support viable and well-distributed populations of old-growth associated species and subspecies (Forest Plan, p. 3-61).

Provide the abundance and distribution of habitat necessary to maintain viable populations of existing native and desirable non-native species well-distributed in the planning area (i.e., the Tongass National Forest) (Forest Plan, p. 4-82).

The 2012 Planning Rule states that “This part supersedes any prior planning regulation. No obligations remain from any prior planning regulation, except those that are specifically included in a unit’s existing plan” (36 CFR 219.17(c)). Thus, while the 1982 regulation no longer applies, the provisions cited above from the 2008 Plan do.

The section of this ROD on protecting wildlife habitat and the Conservation Strategy describes in detail how the Forest Plan Amendment meets these obligations. Based on my review of the amended Forest Plan, the Final EIS, and the planning record, I find that this decision satisfies all legal requirements related to the NFMA diversity provision because it will provide for the diversity of plant and animal communities.

Endangered Species Act

Biological Assessments were prepared to address effects of the Selected Alternative on federally listed species and their critical habitat. Species addressed include those that occur within and near the Tongass National Forest. One of these species, the short-tailed albatross, is under the jurisdiction of USFWS. The other 19 species are under the jurisdiction of the National Marine Fisheries Service (NMFS) and include the humpback, sperm, and fin whales, the western DPS of the Steller sea lion, and 15 DPSs and evolutionary significant units of salmon, steelhead, and

sturgeon. All of the federally listed fish species that occur within or near the Tongass spawn outside of Alaska, so occur here only during the marine stages of their lifecycles.

The Forest Service submitted the Biological Assessments to USFWS and NMFS and requested their concurrence with our determinations. Concurrence was received from USFWS on August 5, 2016, and from NMFS on October 18, 2016. These procedures comply with Section 7 of the ESA, which requires all Federal agencies, in consultation with USFWS and NMFS, to ensure that their actions are not likely to jeopardize the continued existence of federally listed species or adversely modify their critical habitat. The final determination for all 20 species is that the Selected Alternative may affect, but is not likely to adversely affect, these species or their critical habitat.

Magnuson-Stevens Fishery Conservation and Management Act

Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act states that all Federal agencies must consult the National Marine Fisheries Service for actions or proposed actions that may adversely affect essential fish habitat. The Act promotes the protection of essential fish habitat through project review, assessment, and mitigation of activities that may adversely affect these habitats. The Forest Plan itself, including this amendment, does not authorize any specific project or actions and therefore does not affect essential fish habitat. Future project activities designed to implement the amended Forest Plan that may adversely affect essential fish habitat will go through consultation in accordance with the Act. The National Marine Fisheries Service was an important contributor in the development of the 1997 Forest Plan, participated in informal consultation and review of the 2008 Forest Plan Amendment effort and this amendment, and continues to be involved in the implementation and monitoring of projects and actions implementing the plan.

Tongass Timber Reform Act

The Tongass National Forest will continue to be managed in compliance with Section 101 of the TTRA, which states in part that the Secretary of Agriculture “shall, to the extent consistent with providing for the multiple use and sustained yield of all renewable forest resources, seek to provide a supply of timber from the Tongass National Forest which (1) meets the annual market demand for timber from such forest and (2) meets the market demand from such forest for each planning cycle.”

As discussed in detail in the section on market demand, the Selected Alternative is expected to provide sufficient timber to meet projected demand for timber from the Tongass National Forest. The requirement dealing with annual market demand is met through implementation of the Morse methodology, which estimates the volume of timber to be offered annually. The TTRA requirement regarding market demand for each planning cycle is met by adopting the Selected Alternative as described in the Final EIS and this ROD, and by a series of annual applications of the Morse methodology.

Alaska National Interest Lands Conservation Act

The Alaska National Interest Lands Conservation Act (ANILCA), as amended, contains numerous provisions, including provisions regarding access, that apply to management of the Tongass National Forest. However, it is not necessary to address all of these provisions in the context of this decision. An ANILCA Section 810 evaluation and determination is not required for approval of a forest plan amendment, a programmatic-level decision that is not a determination whether to “withdraw, reserve, lease, or otherwise permit the use, occupancy, or disposition” of National Forest lands. However, a forest-wide evaluation and determination is included for the Forest Plan

Amendment to facilitate future project-level planning and decision-making in compliance with ANILCA Section 810 (16 U.S.C. § 3120).

The Forest Plan Amendment has been evaluated for potential effects on subsistence uses and needs consistent with Section 810 of ANILCA. A cumulative effects analysis of resource developments on subsistence resources is included in the Final EIS (Chapter 3, "Subsistence"). Based on this analysis, implementation of the Forest Plan may result in a significant restriction to subsistence use of deer due to the potential effects of projects on the abundance and distribution of these resources, and on competition for these resources. The possibility of a significant restriction, resulting from a change in abundance or distribution, would be less than the possibility under the 1997 Forest Plan or 2008 amended Forest Plan because of the lower anticipated rates of road construction and timber harvest.

Section 810 subsistence hearings were completed for the Draft EIS, consistent with Section 810, by (1) giving notice to the appropriate State agency, local committees and regional councils; and, (2) giving notice of, and holding, "a hearing in the vicinity of the area involved." Because the area is the entire Tongass National Forest, such hearings were held in nine communities throughout Southeast Alaska for the Draft EIS.

Section 810 requires that when a use, occupancy, or disposition of public lands may result in a significant possibility of a significant restriction, a determination must be made whether: "(A) such a significant restriction of subsistence uses is necessary, consistent with sound management principles for the utilization of the public lands, (B) the proposed activity will involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other disposition, and (C) reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources resulting from such actions." I will now discuss each of these three points.

Necessary, Consistent with Sound Management of Public Lands

The Forest Plan Amendment has been examined to determine whether its potential for a significant restriction of subsistence uses is necessary, consistent with the sound management of public lands, as required by the Multiple-Use Sustained-Yield Act, the National Forest Management Act, the Alaska National Interest Lands Conservation Act, the Tongass Timber Reform Act, and relevant State laws. The requirements of these laws have been reviewed and several of these have been discussed in this ROD.

The Forest Plan Amendment must be designed to provide a mix of resources and benefits to best meet the needs of the American people. Some of the resource uses necessary to achieve these benefits have the potential to adversely affect subsistence uses within the Tongass. However, given the multiple-use mandate and the other requirements of law, these effects to subsistence uses are necessary, consistent with the sound management of public lands.

Amount of Public Land Necessary to Accomplish the Proposed Action Purpose

The amount of land necessary to implement the Forest Plan Amendment is, considering sound multiple-use management of public lands and the goals and objectives of the Plan, the minimum necessary to accomplish the purposes of such use. A forest plan must involve, by law, the entire forest. The plan does not authorize by itself any land-disturbing activities. Most of the Tongass National Forest, except the icefields, is used by one or more rural communities for subsistence deer harvesting. Many of the LUDs protect high value subsistence areas.

Reasonable Steps to Minimize Adverse Impacts Upon Subsistence Uses and Resources

The continuation of subsistence opportunities, and reasonable steps to minimize effects on subsistence resources, are provided for by the forest-wide standards and guidelines for subsistence, as well as related standards and guidelines for riparian areas, fish, and wildlife.

Many important subsistence areas were assigned LUDs that exclude timber harvesting. The beach and estuary fringe forest-wide standards and guidelines apply to all beach fringe and estuarine areas not under more restrictive designations. Adverse impacts to subsistence uses and resources are minimized through these measures. The potential site-specific effects on subsistence uses, and reasonable ways to minimize these effects, will be analyzed and considered during project-level planning.

It is not possible to substantially reduce timber harvest in some areas by concentrating it in other areas without affecting subsistence resources and uses important to one or more rural communities. Also, concentrating timber harvest outside more important subsistence areas while still meeting the timber harvest goals of the amended Forest Plan could not be done without affecting the natural distribution of wildlife species, or without potentially significant effects to watersheds.

Clean Water Act

Implementation of this Plan Amendment is expected to maintain and improve water quality and satisfy all State water quality requirements. I base this finding on the extensive standards and guidelines contained in Chapters 3 and 4 of the Plan, the new plan components contained in Chapter 5, the application of State-approved “Best Management Practices” specifically designed to protect water quality, and the discussion of water quality and beneficial uses contained in Chapter 3 of the Final EIS. Examples include the management direction protecting beach and estuary fringe, riparian buffers, and road design requirements. Additionally, project level analysis for subsequent activities under the Plan will be required to demonstrate compliance with Clean Water Act and State water quality standards.

Clean Air Act

At the scale of a programmatic plan such as this, the overall level of activities proposed under this decision is not anticipated to degrade air quality or violate State implementation plans. This finding is based on information presented in the Final EIS. The only non-attainment area within the vicinity of the Tongass National Forest is Juneau. Conformity determinations and more detailed air quality impact analyses will be made at subsequent levels of planning and analysis, where emissions can be more accurately quantified and reasonably forecasted and local impacts assessed.

Floodplains and Wetlands (Executive Orders 11988 and 11990)

These Executive Orders require Federal agencies to avoid, to the extent possible, short- and long-term effects resulting from the occupancy and modification of flood plains, and the modification or destruction of wetlands. Forest-wide standards and guidelines are provided for soil and water, wetlands, and riparian areas to minimize effects to flood plains and wetlands. They incorporate the Best Management Practices of the Soil and Water Conservation Handbook. The forest-wide standards and guidelines for beach and estuary fringe apply to all estuaries where less restrictive management might otherwise occur.

Environmental Justice (Executive Order 12898)

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, requires each Federal agency to make the achievement of environmental justice part of its mission by identifying and addressing disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations. The Order further stipulates that the agencies conduct their programs and activities in a manner that does not have the effect of excluding persons from

participating in, denying persons the benefits of, or subjecting persons to discrimination under such programs, policies, and activities because of their race, color, or national origin.

The issue of environmental justice is analyzed within Chapter 3, Communities, of the Final EIS. The *Community Assessment* section indicates the per capita incomes (2010 Census), the population (2013, Alaska Department of Labor), the percent of Natives within the population (2010 Census), and recent trend and economic events for 32 Southeast Alaska communities. The analysis also includes discussions of potential timber harvesting within each community's use area, the potential impacts to the subsistence resources and land base used by each community, as well as potential impacts relative to recreation and tourism relative to each community.

The results of the analyses are very similar to those found in the 1997 Forest Plan Final EIS, the 2003 Forest Plan Final Supplemental EIS, and the 2008 Forest Plan Amendment Final EIS. I have concluded the amended Forest Plan results in a very low risk of disproportionate effects on minority or low-income populations in Southeast Alaska.

Sensitive Species

Biological Evaluations were completed to analyze the programmatic effects of the proposed alternatives for the amended Forest Plan on Forest Service sensitive wildlife, fish, plants, and lichen species/sub-species known or suspected to occur within the Tongass National Forest. Twenty of these species/sub-species are on the most recent Alaska Region's sensitive species list (2009). One wildlife species, the eastern DPS of the Steller sea lion, was not included on the list, but is considered sensitive because Alaska Region policy required that species removed from listing under the ESA be automatically added to the sensitive species list for at least five years to ensure that its recovery is maintained and monitored. The eastern DPS of the Steller sea lion was delisted in 2013 (78 FR 66139), after the 2009 Alaska Region sensitive species list was developed.

With respect to sensitive plant species, the evaluation found that all of the proposed alternatives *may affect* all sensitive plants that are known to occur on the Tongass with two exceptions (the Eschscholtz's little nightmare and Pale poppy). For two plant species (Mountain lady's slipper and Large yellow lady's slipper), some risk exists under all of the alternatives that there may be a loss of viability in the plan area, however it is not expected to contribute to a trend toward Federal listing because of the abundance of these plants outside the Tongass. All alternatives analyzed for the Forest Plan Amendment would apply the design standards and protections that mitigate project effects on sensitive plants; this direction remains the same as described in the 2008 amended Forest Plan.

With respect to sensitive wildlife species, the evaluation found all alternatives *may affect* the sensitive species (Queen Charlotte goshawk, Black oystercatcher, Aleutian tern, Kittlitz's murrelet, and the eastern DPS of the Steller sea lion); however, none of the effects are expected to result in a loss in viability or lead towards an ESA listing.

Civil Rights

Civil Rights are defined as "the legal rights of United States citizens to guaranteed equal protection under the law" (USDA Forest Service Manual 1730). Civil rights impact analysis for environmental or natural resource actions is part of the social impact analysis package in a necessary environmental impact statement and is not a separate report (USDA Forest Service Handbook 1709.11).

The Forest Service is committed to equal treatment of all individuals and social groups in its management programs in providing services, opportunities and jobs. Because no actual or projected violation of legal rights to equal protection under the law is foreseen under the amended

Forest Plan for any individual or category of people, no civil rights impacts are reported in the Final EIS.

Implementation

Effective Date

The 2016 Tongass National Forest Land and Resource Management Plan as amended will be effective 30 days after publication of notice of my approval in the newspaper of record, the *Ketchikan Daily News* (36 CFR 219.17(a)(2)). While supplemental notice will be published in the *Juneau Empire*, the amended Plan's effective date is calculated on the basis of publication in the newspaper of record.

Effective Direction

During the long and complex history of forest planning on the Tongass, many planning documents (forest plans, environmental impact statements, and records of decision) have been prepared. While all of these documents are useful and often build upon each other, it can be confusing to the public and to Forest Service employees searching for management direction or information to use in project level analysis. The planning record for the 2016 Tongass Forest Plan Amendment includes a summary of the current status of each of these documents.

In terms of management direction, this 2016 Record of Decision and the amended Forest Plan supersede all past forest plans and records of decision for the Tongass National Forest.

Timber Sale Economics

Providing economic timber sales in Southeast Alaska has always been a challenge and is expected to remain so in the future. The basic lack of infrastructure in a relatively isolated and harsh environment significantly affects development and operational costs. Earlier timber sale programs included significant investments in infrastructure development to aid individual timber sales be more economic. In recent years, investments in deferred road maintenance and construction of long term system roads in timber sale project areas has helped ensure timber sales are economic. Timber sale planning and the manner in which Forest Plan management direction is applied to specific timber sales can have significant cost consequences on the sales. Forest Plan implementation training will be conducted to ensure that the Plan is implemented consistently, effectively, and efficiently. This will include training in planning timber sales to fully meet the intent of the amended Forest Plan and also to be as economic as possible. Implementation of the amended Forest Plan will be monitored. If it is determined that the Plan unnecessarily affects the ability to produce economic timber sale projects, the forest plan amendment process will be initiated, focusing on opportunities to promote economic timber sales without compromising the Forest Plan's goals, objectives, and desired conditions.

Transition to the 2016 Forest Plan Amendment

The amended Tongass Forest Plan does not provide final authorization for any activity, including timber sales, nor does it compel that any contract, authorization, or permit be advertised, granted, or awarded. Rather, like the 1997 Forest Plan and the 2008 amended Forest Plan, it provides a programmatic framework within which projects will be proposed, analyzed, and decided upon.

For activities or projects for which final decisions have been made, I am exercising my discretion under NFMA and have determined that it is not necessary to apply the amended Plan's management direction retroactively. The decisions that were made prior to the approval date of the amended Forest Plan may proceed unchanged. These decisions are allowed to be carried out, or if already underway, to continue unchanged because implementing pre-existing decisions

and the associated effects of that implementation were considered as part of the baseline and were assumed to continue in the environmental analysis of alternatives in the Final EIS for the 2016 Forest Plan Amendment. Because we considered these earlier decisions in our effects analysis, their implementation is not in conflict with the amended Plan and is deemed consistent.

For activities or projects that are proposed and for which a final decision document has not yet been made prior to the approval of the amended Forest Plan, the project or activity decision document must describe how the project or activity is consistent with the amended Plan, as addressed in Chapter 6 of the amended Plan.

Contact Information

If you would like more information on the Tongass Forest Plan, the Final EIS for this amendment, or this decision, please contact:

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Approval

December 9, 2016

M. Earl Stewart — Date

Tongass Forest Supervisor